

FIG. 1A

(INVENTION)

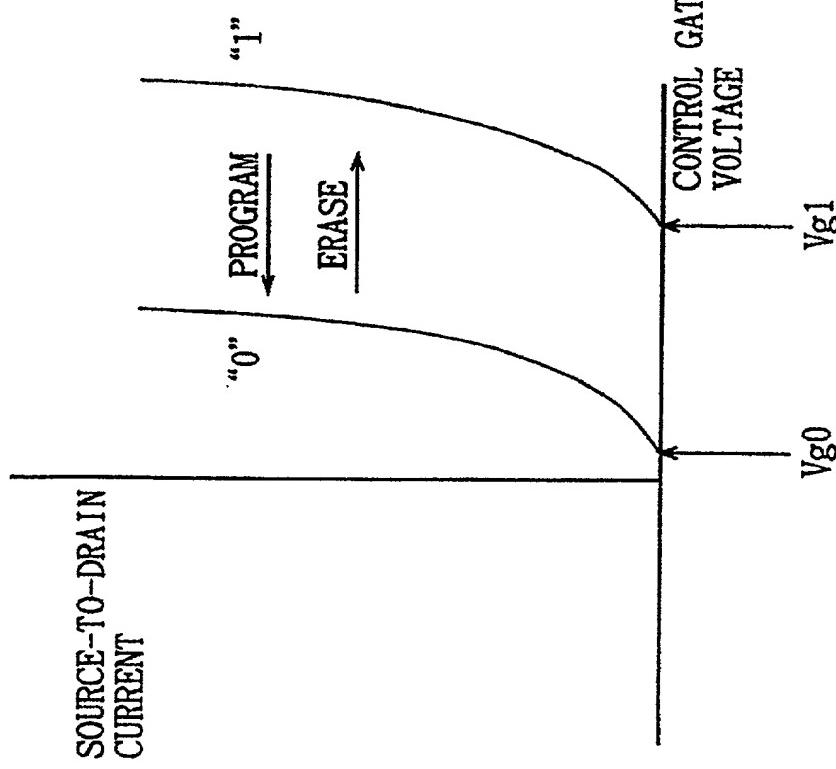


FIG. 1B

(PRIOR ART)

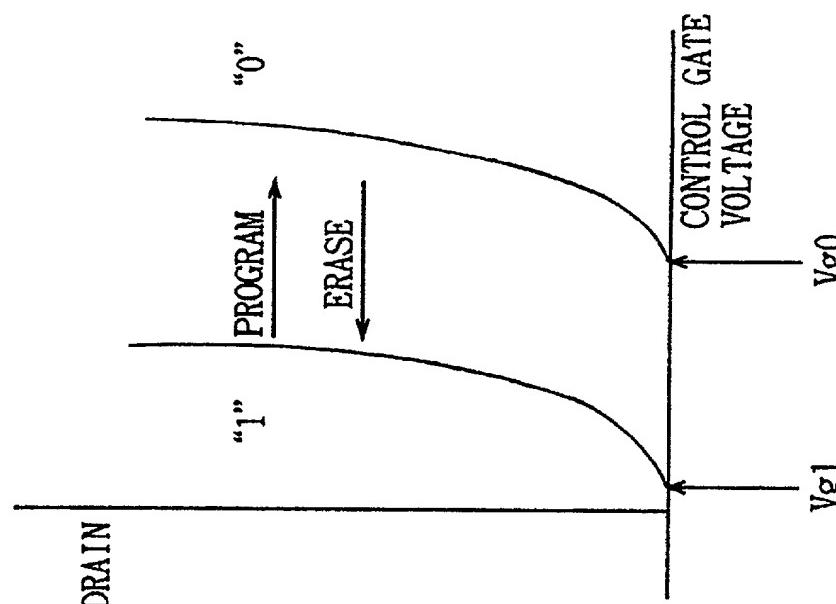


FIG. 2A (INVENTION)

	STORED DATA	FLOATING GATE	THRESHOLD VOLTAGE
ERASED STATE	"1"	INJECTION	HIGH
PROGRAMMED STATE	"0"	EMISSION	LOW

FIG. 2B (PRIOR ART)

	STORED DATA	FLOATING GATE	THRESHOLD VOLTAGE
ERASED STATE	"1"	EMISSION	LOW
PROGRAMMED STATE	"0"	INJECTION	HIGH

FIG. 3

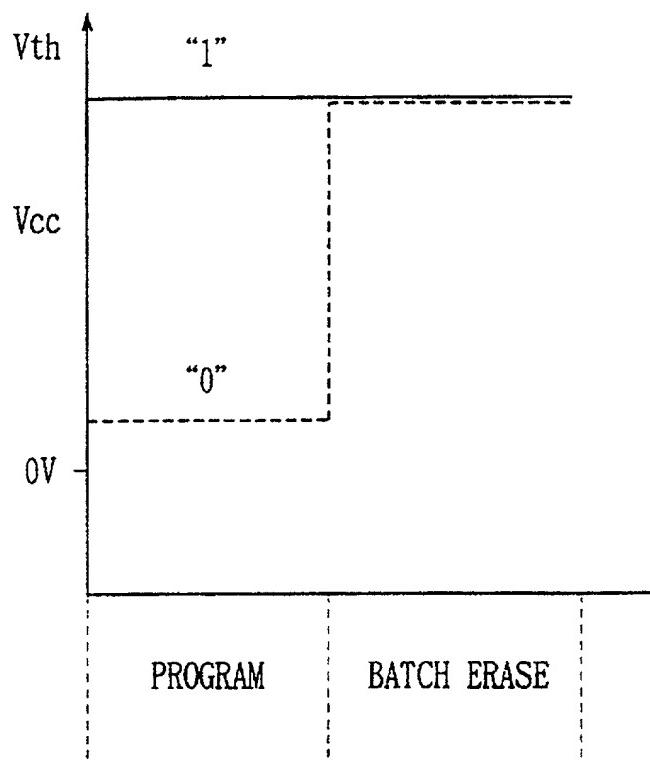
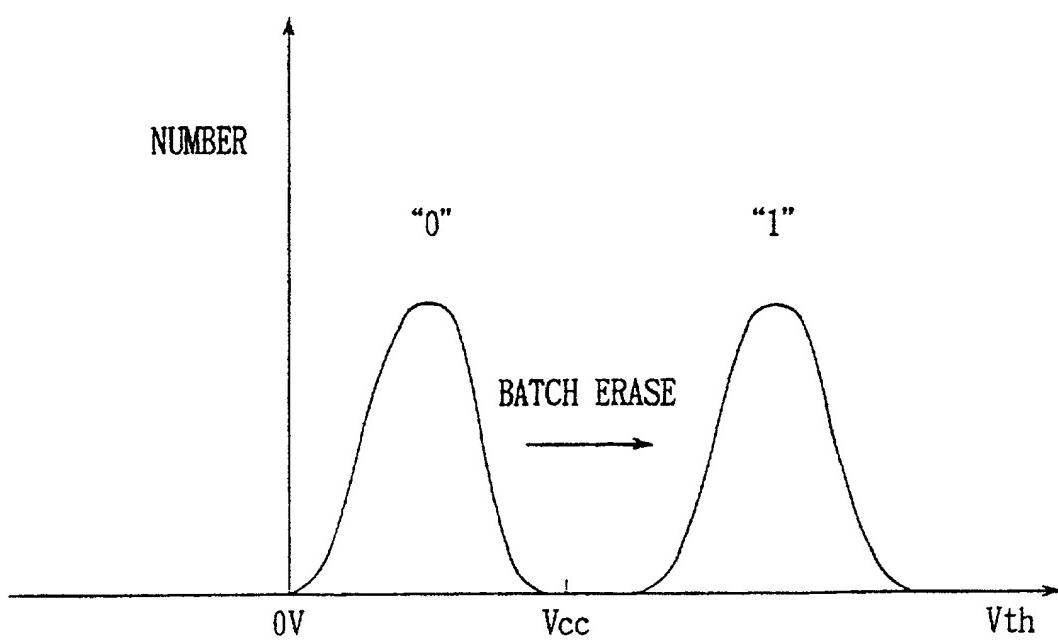


FIG. 4



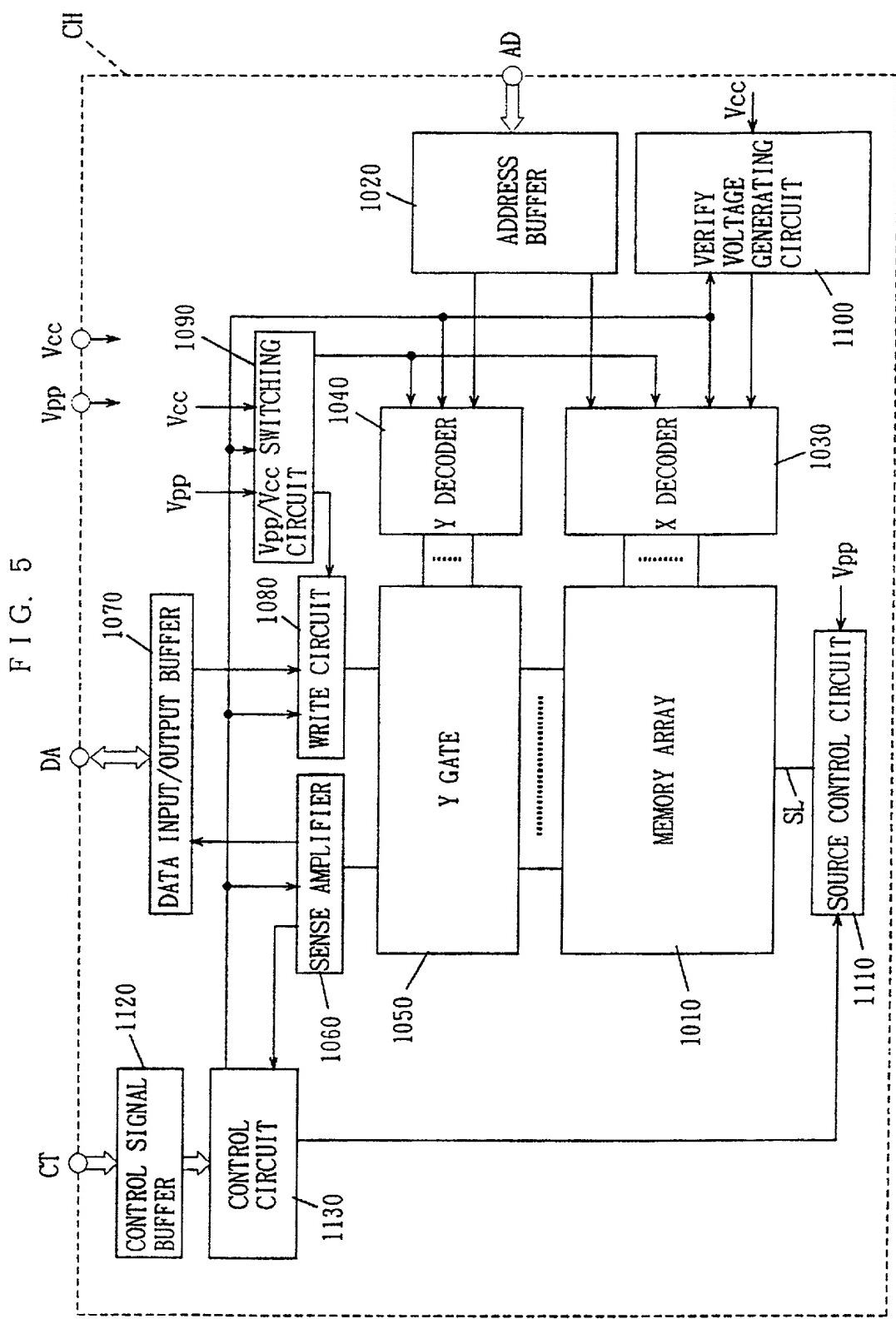
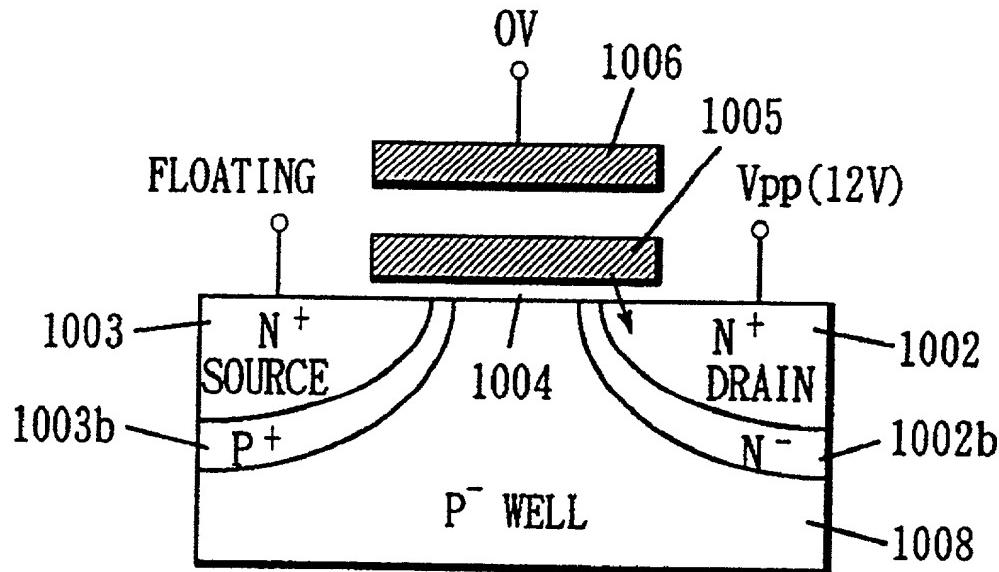


FIG. 6A

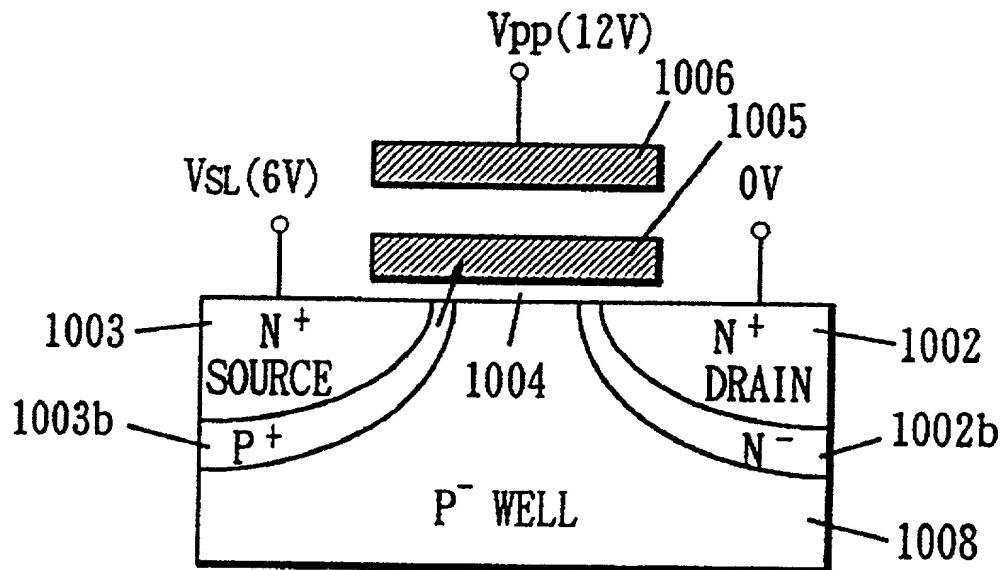
(PROGRAM)



< TUNNEL EFFECT >

FIG. 6B

(ERASE)



< HOT ELECTRON >

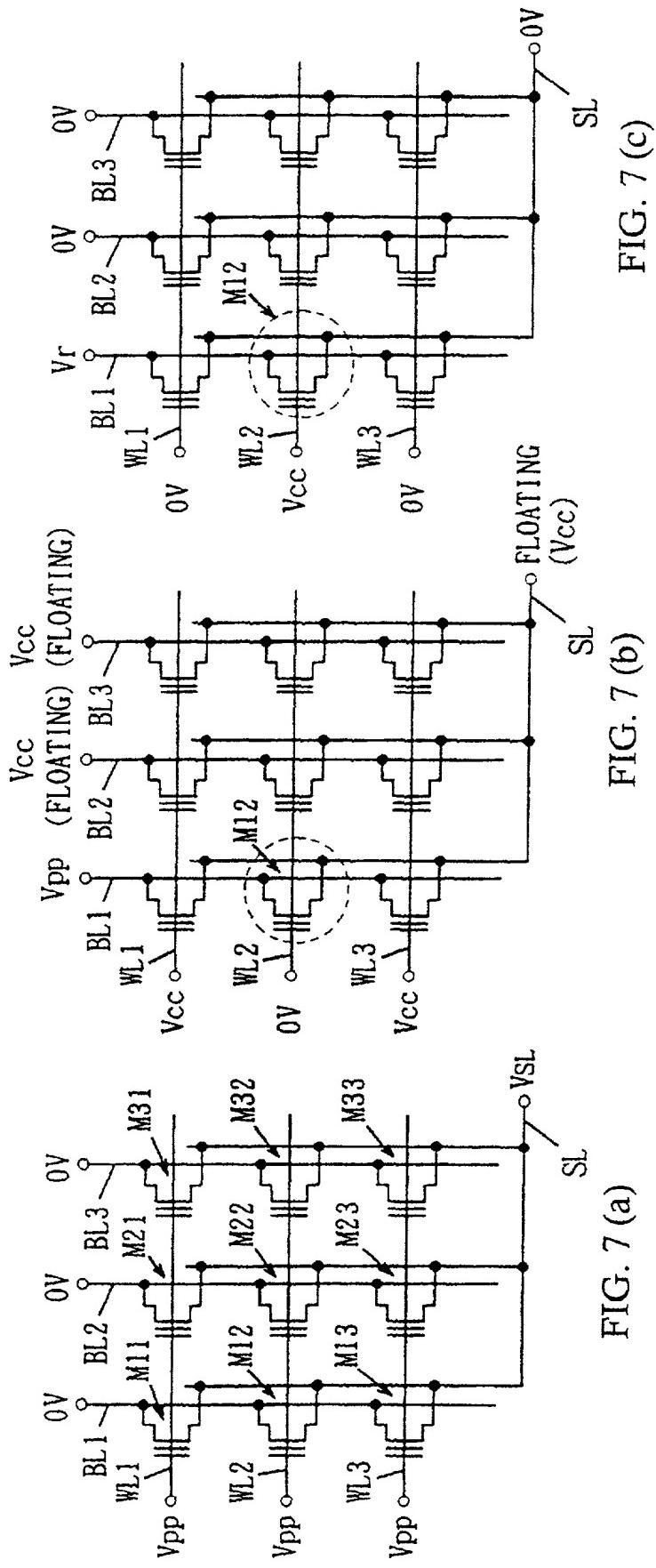
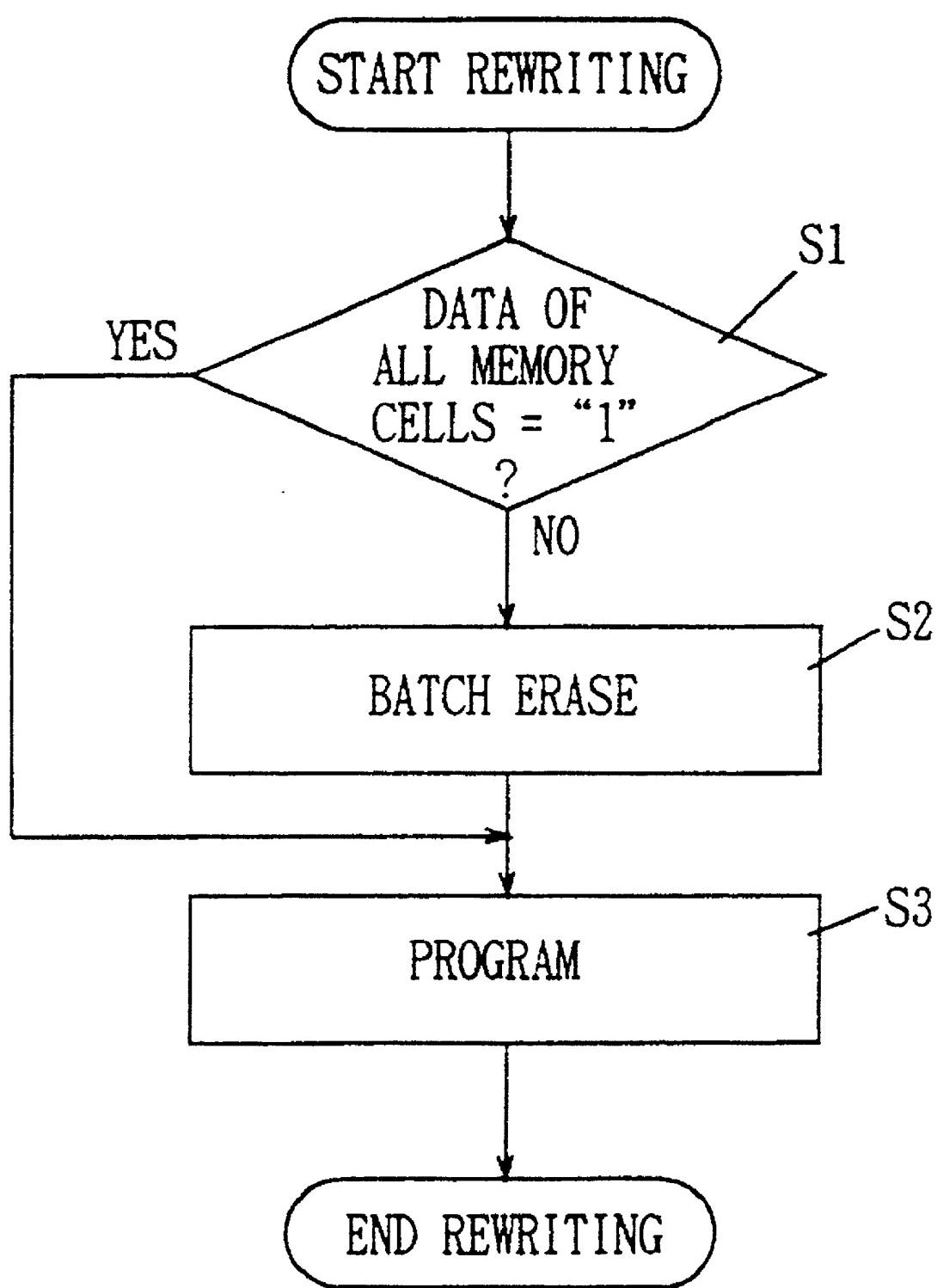


FIG. 8



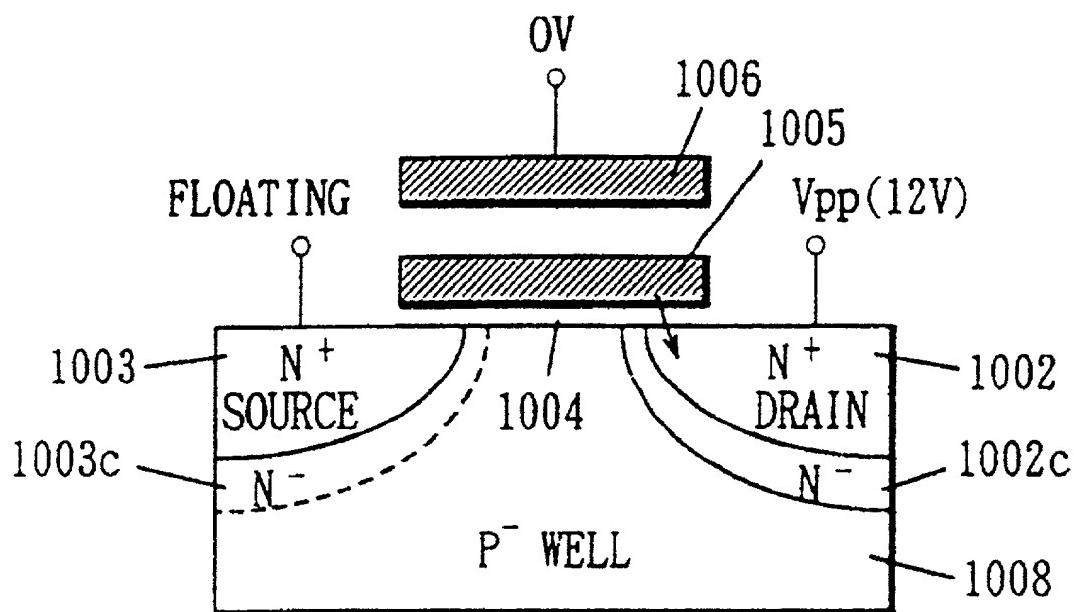


FIG. 9 (a)

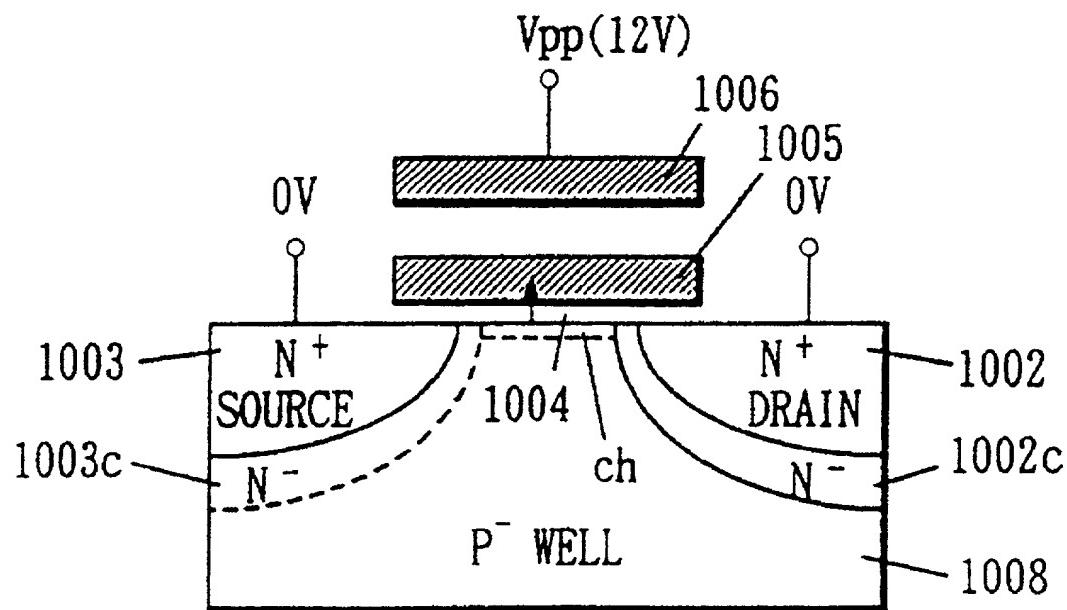


FIG. 9 (b)

FIG. 10A

BATCH ERASE OPERATION

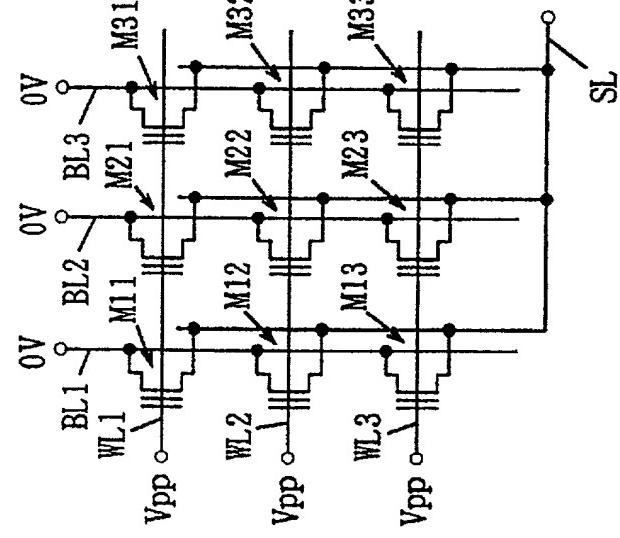


FIG. 10B

PROGRAM OPERATION

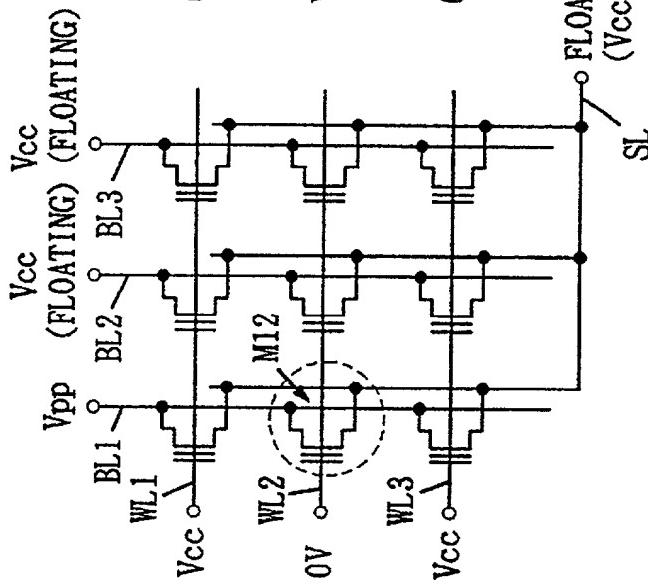


FIG. 10C

READ OPERATION

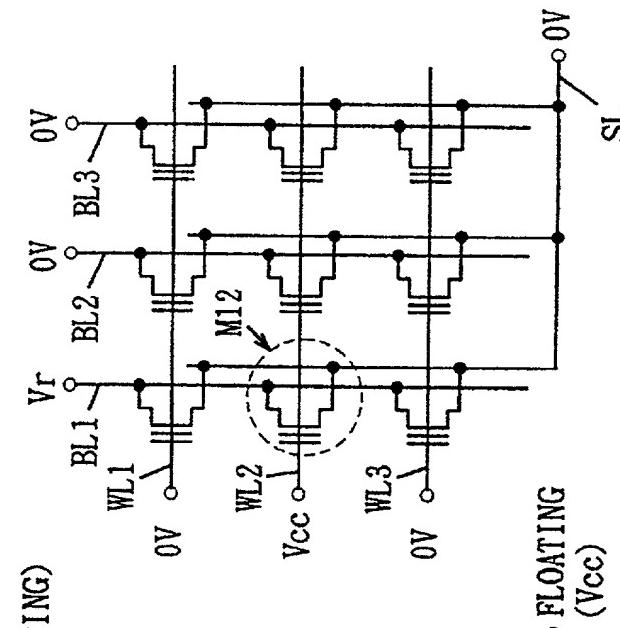


FIG. 11

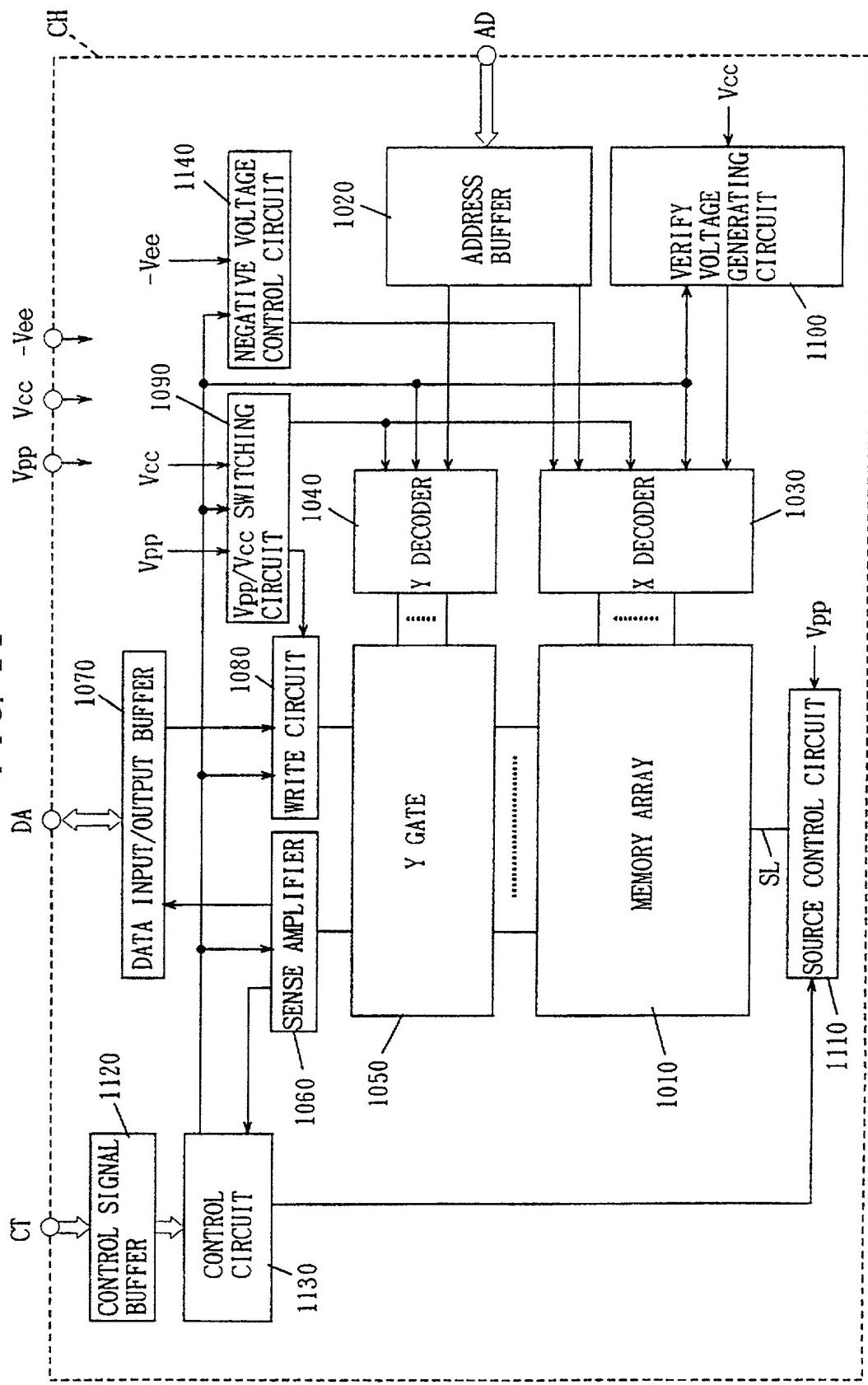


FIG. 12

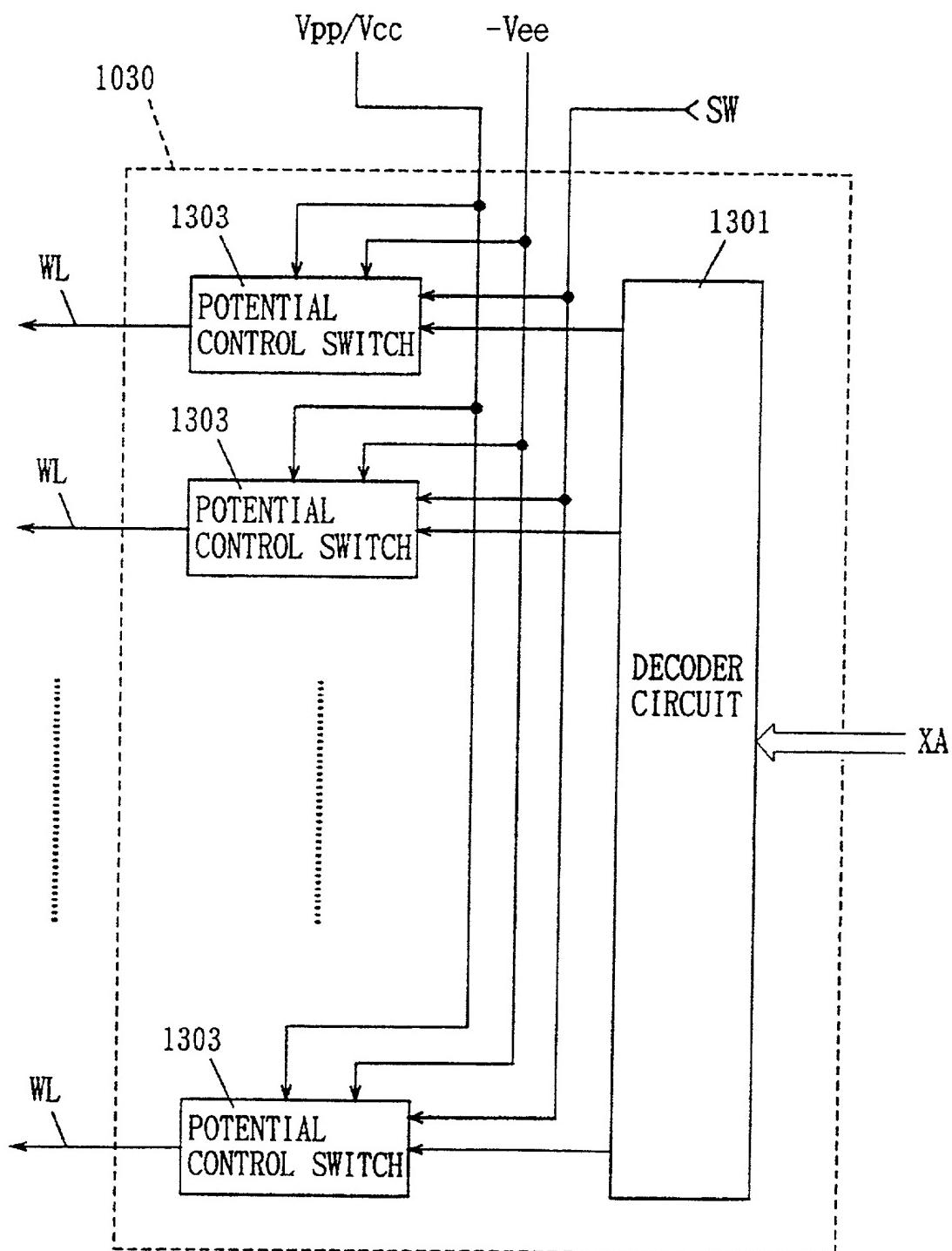


FIG. 13A

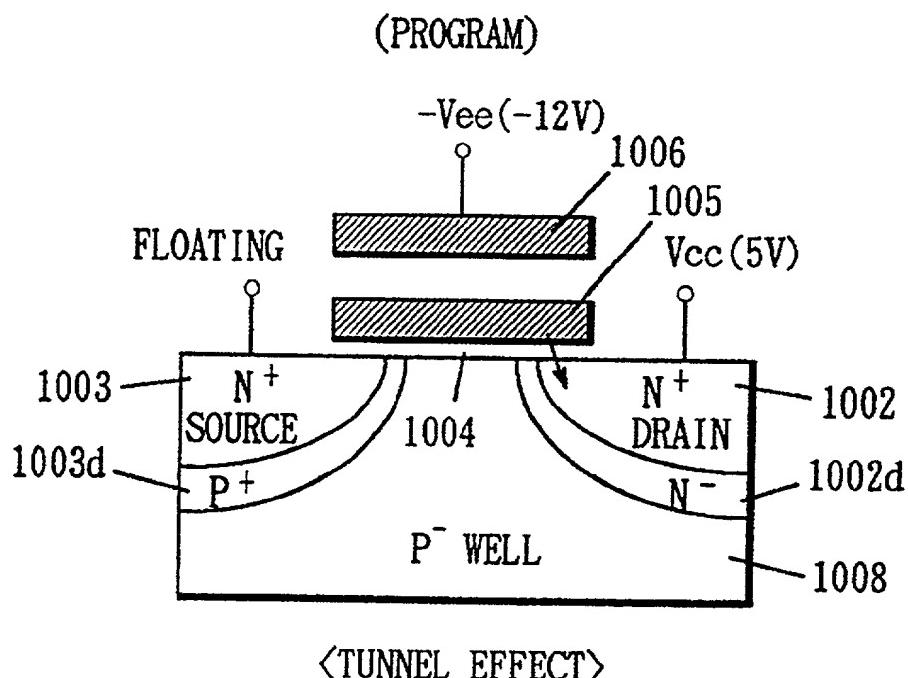


FIG. 13B

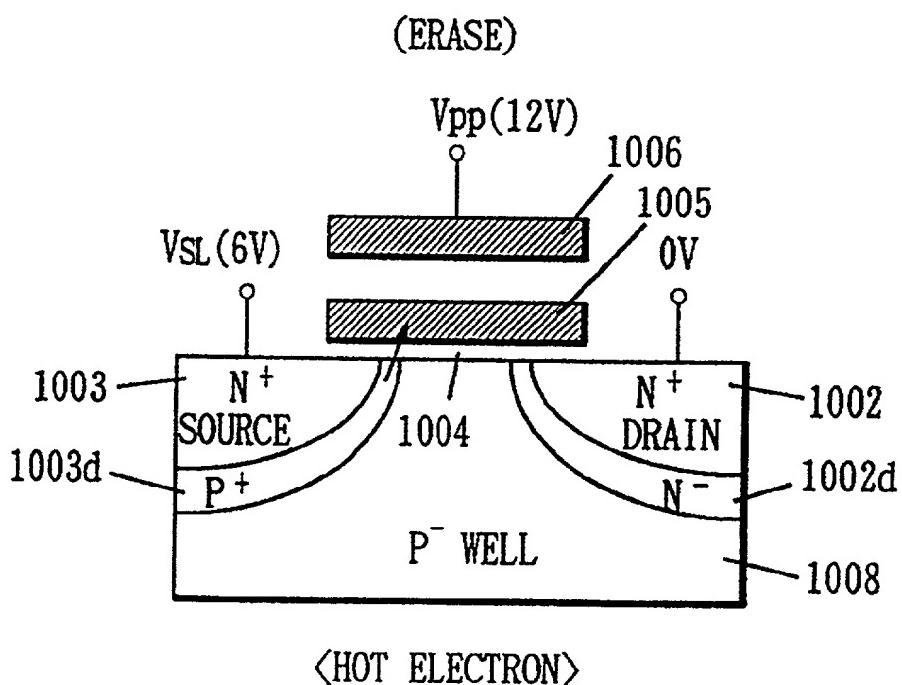


FIG. 14A

BATCH ERASE OPERATION

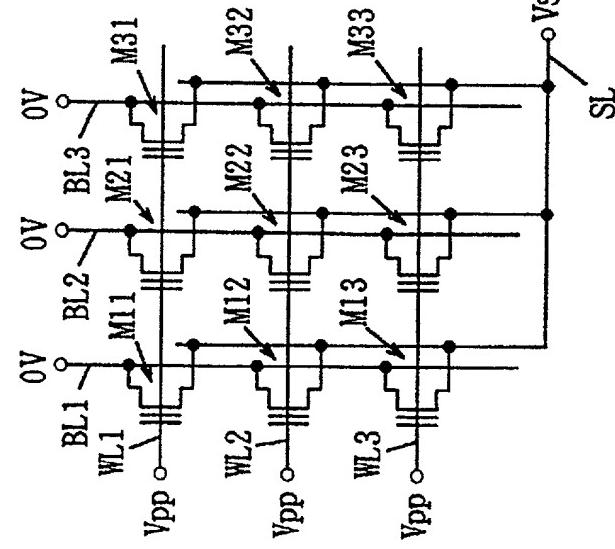


FIG. 14B

PROGRAM OPERATION

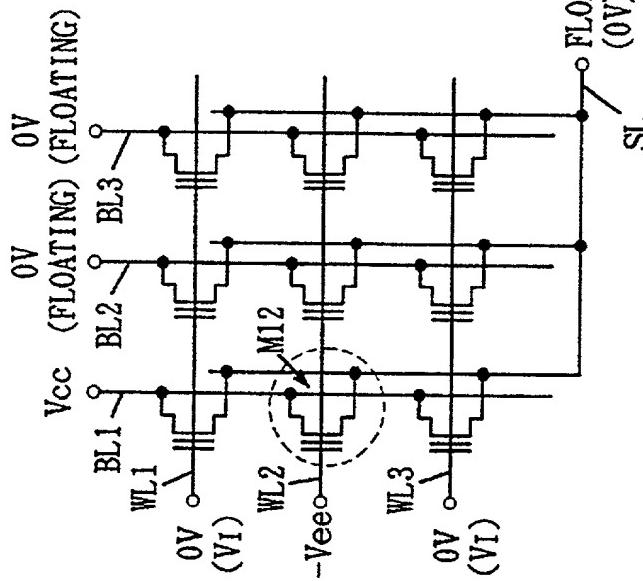


FIG. 14C

READ OPERATION

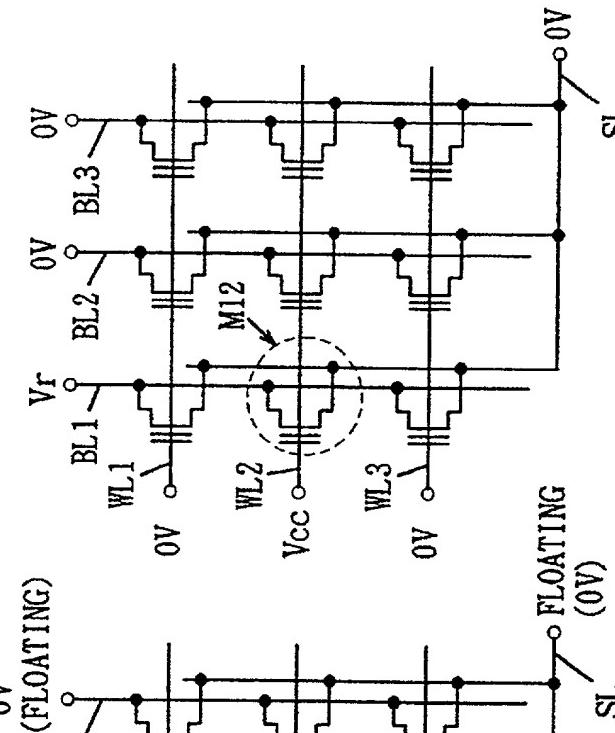


FIG. 15A

BATCH PAGE ERASE OPERATION

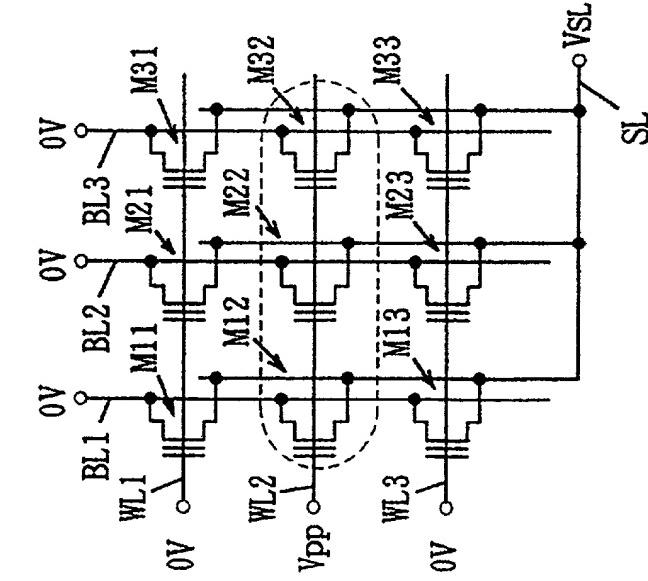


FIG. 15B

PROGRAM OPERATION

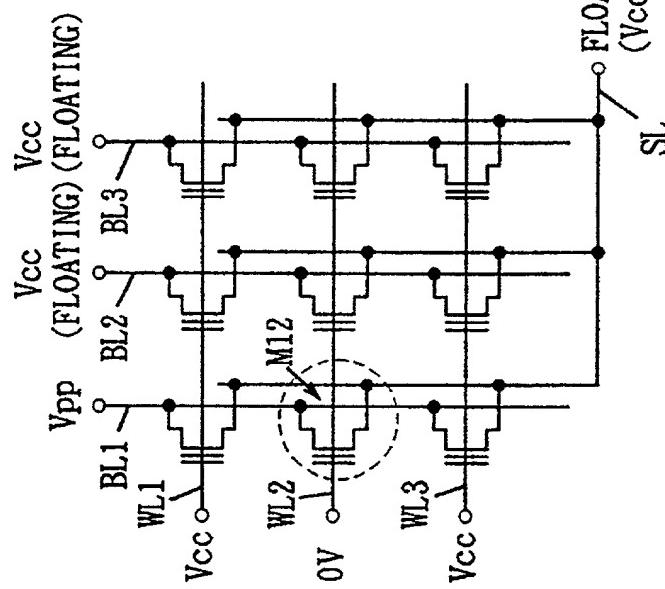


FIG. 15C

READ OPERATION

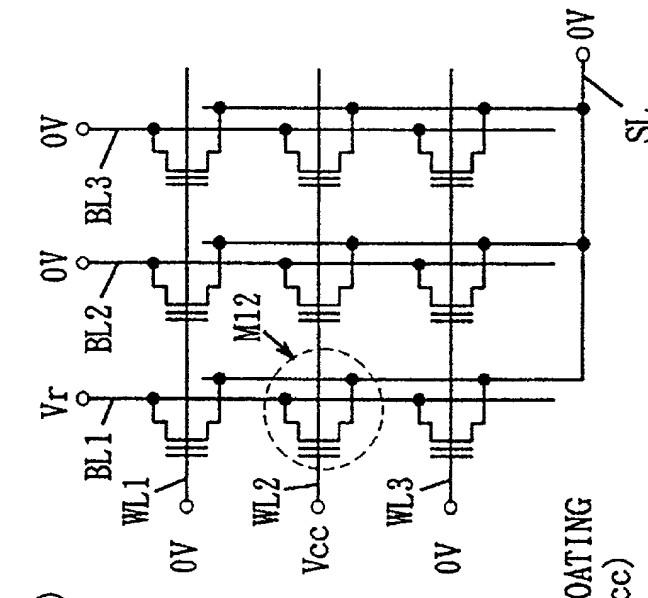


FIG. 16

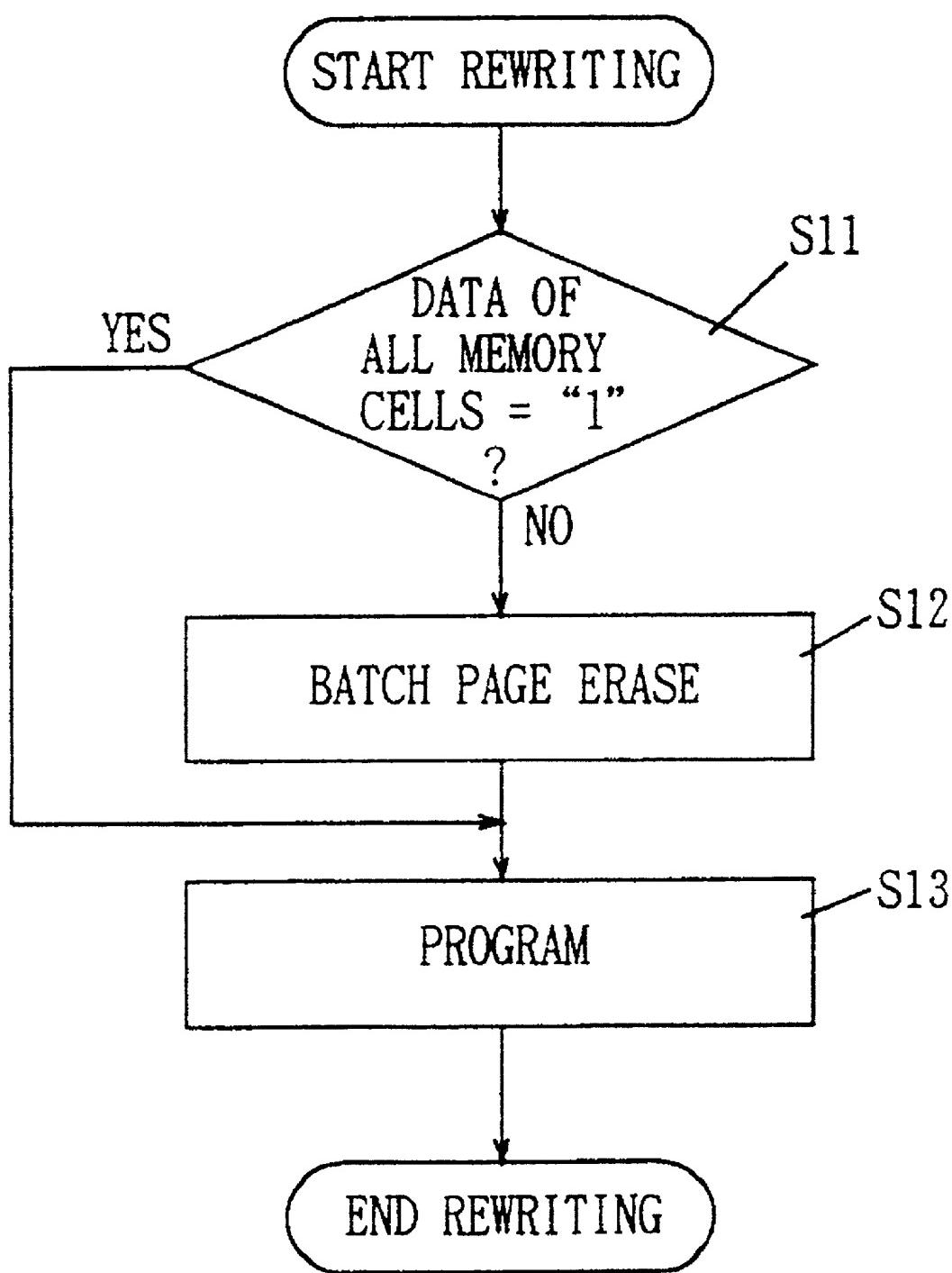


FIG. 17A
BATCH PAGE ERASE OPERATION

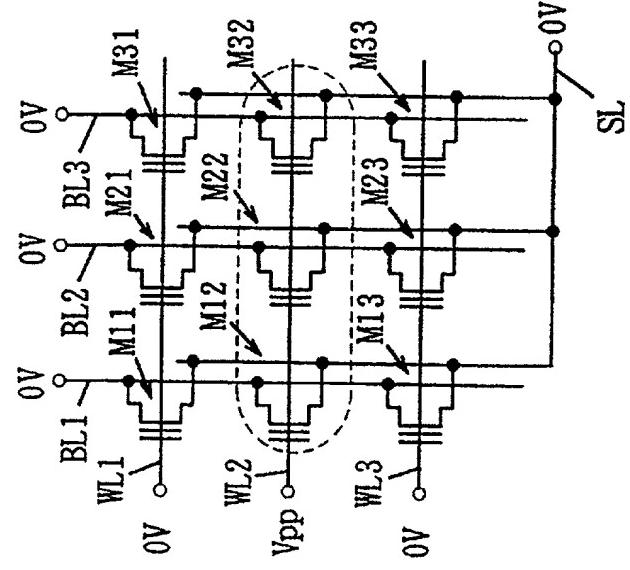


FIG. 17B
PROGRAM OPERATION

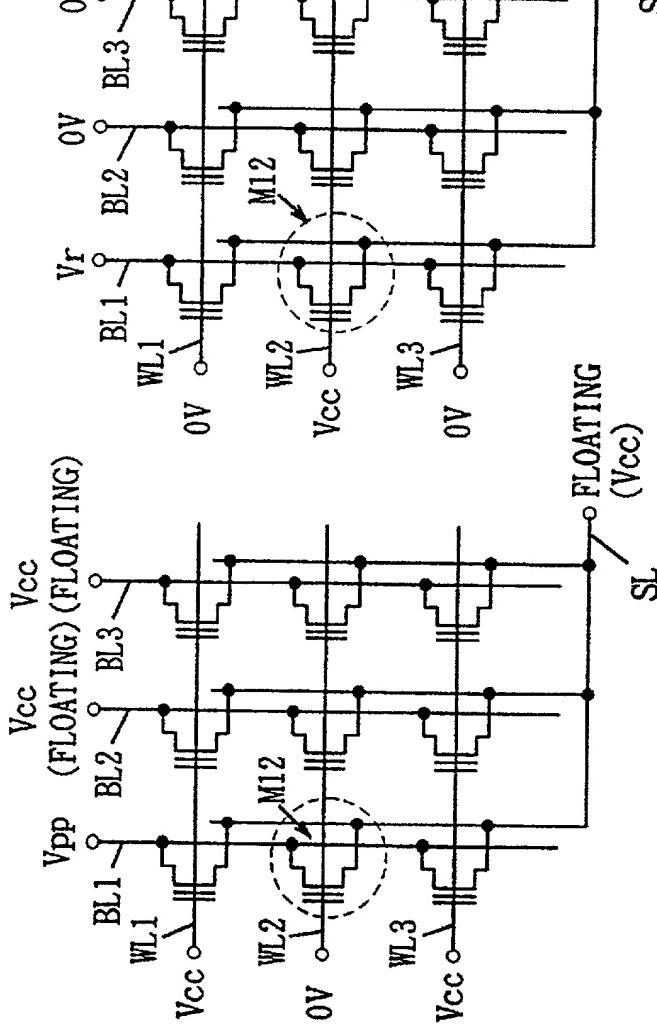
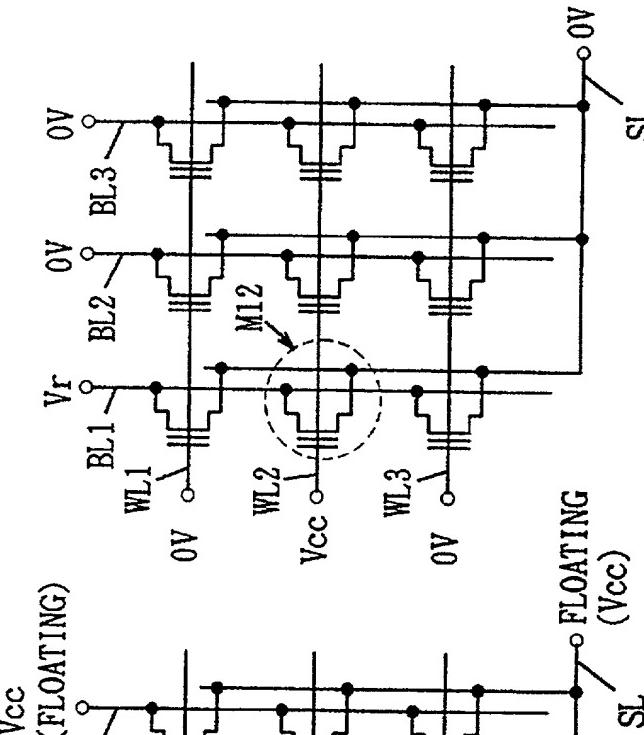


FIG. 17C
READ OPERATION



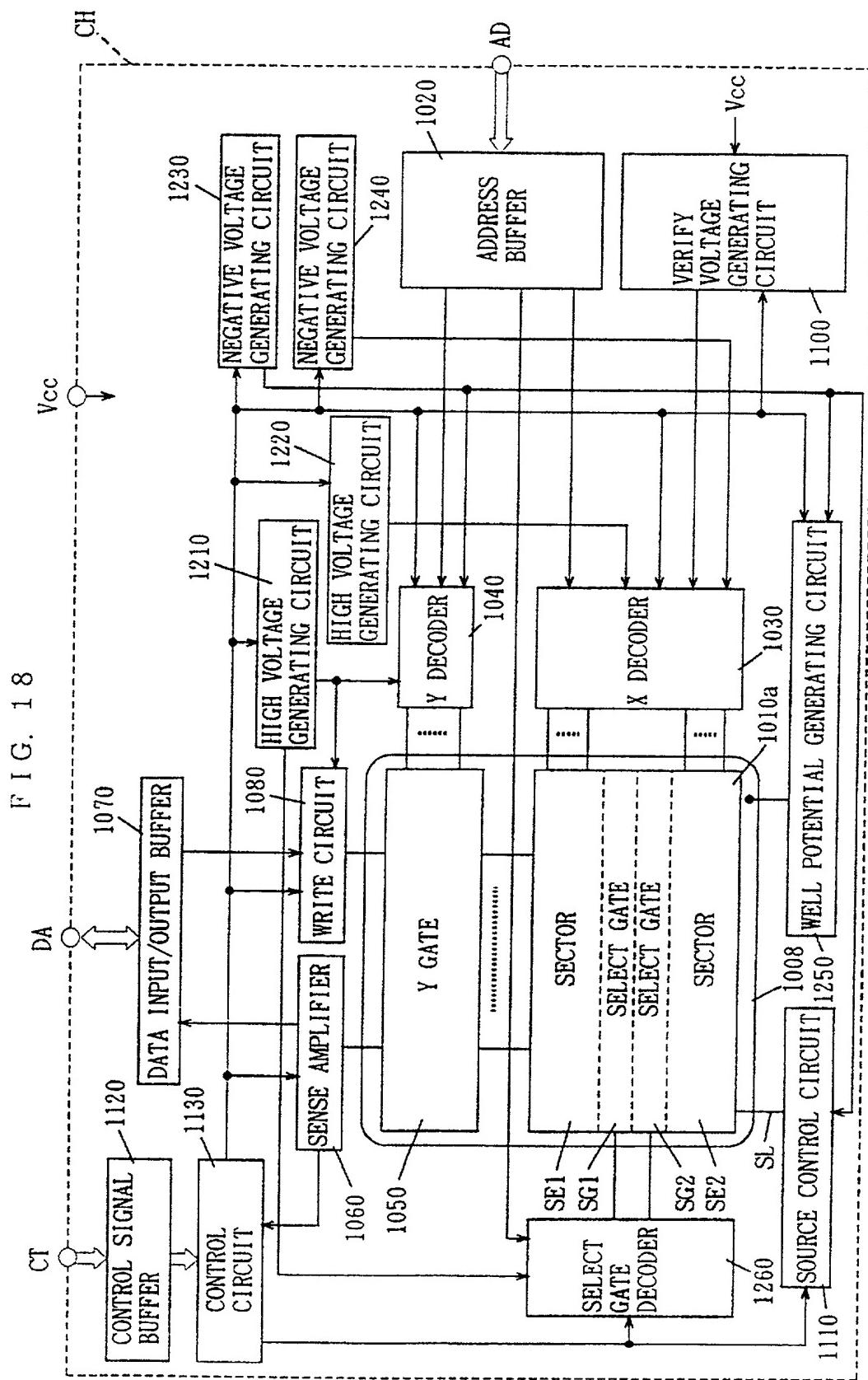


FIG. 19

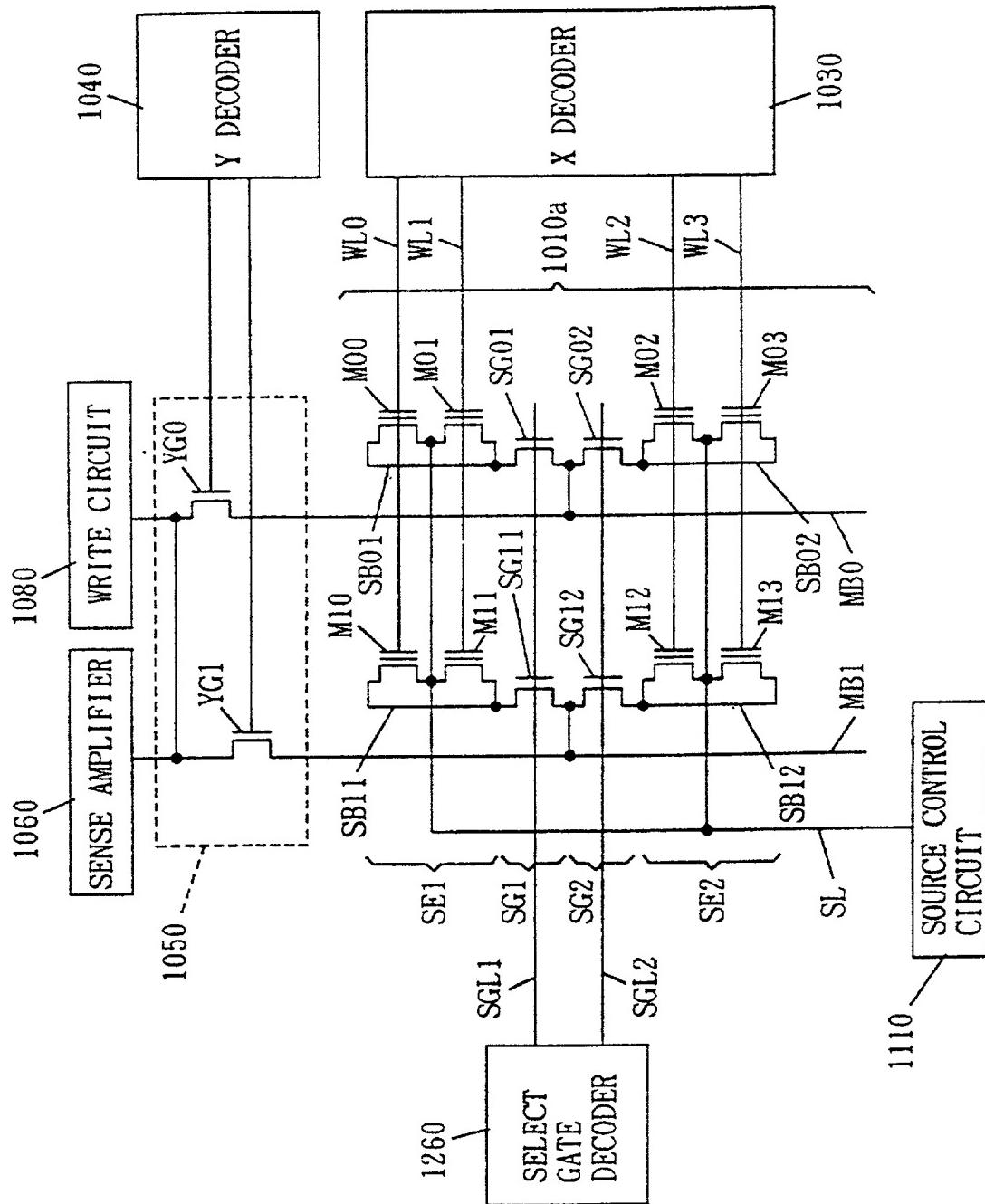


FIG. 20A (PROGRAM)

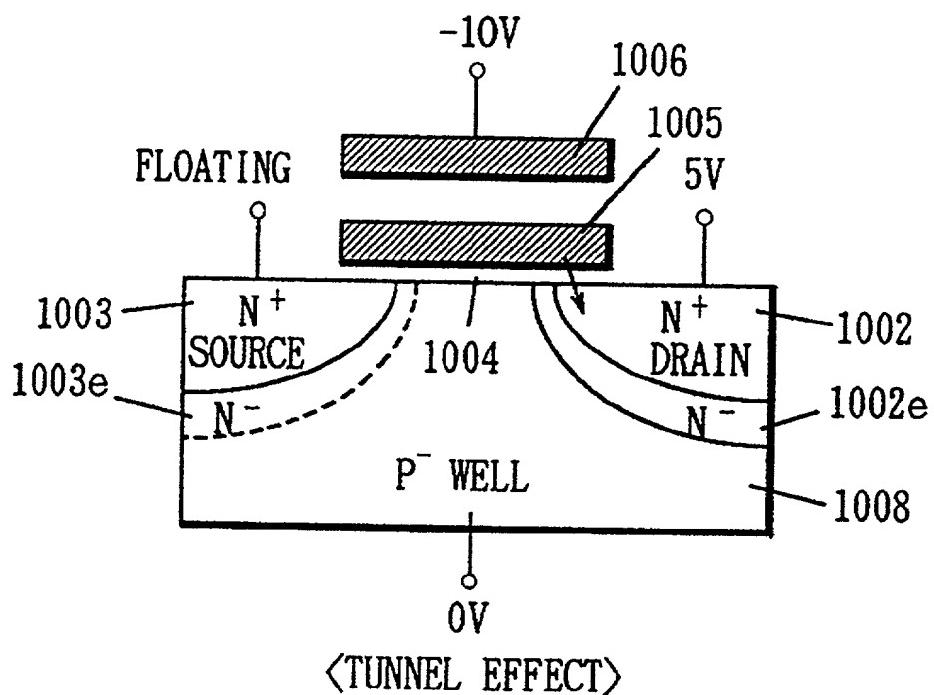


FIG. 20B (ERASE)

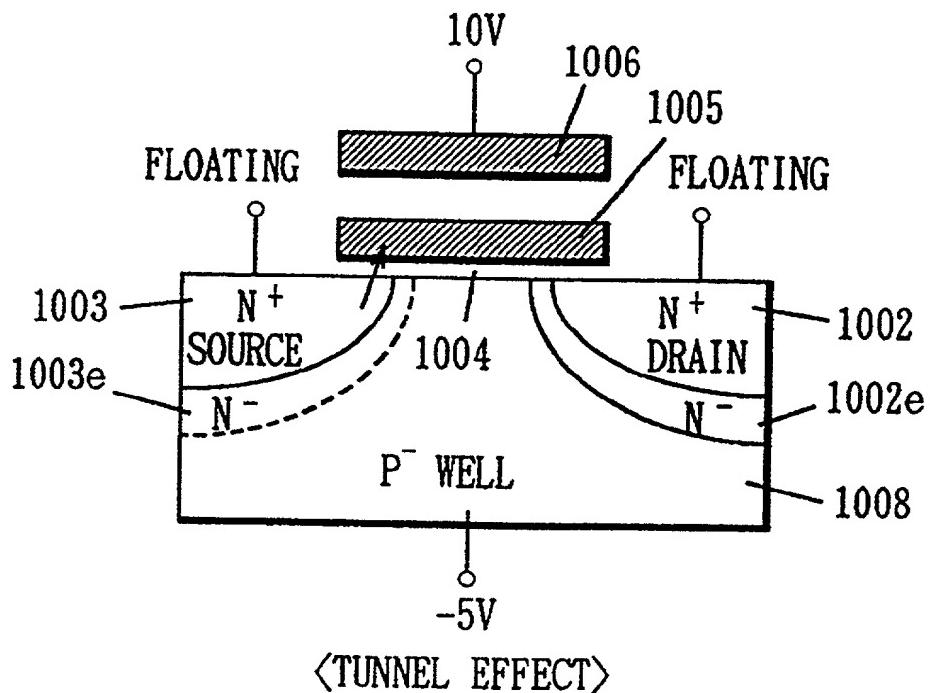


FIG. 21A
BATCH SECTOR ERASE OPERATION

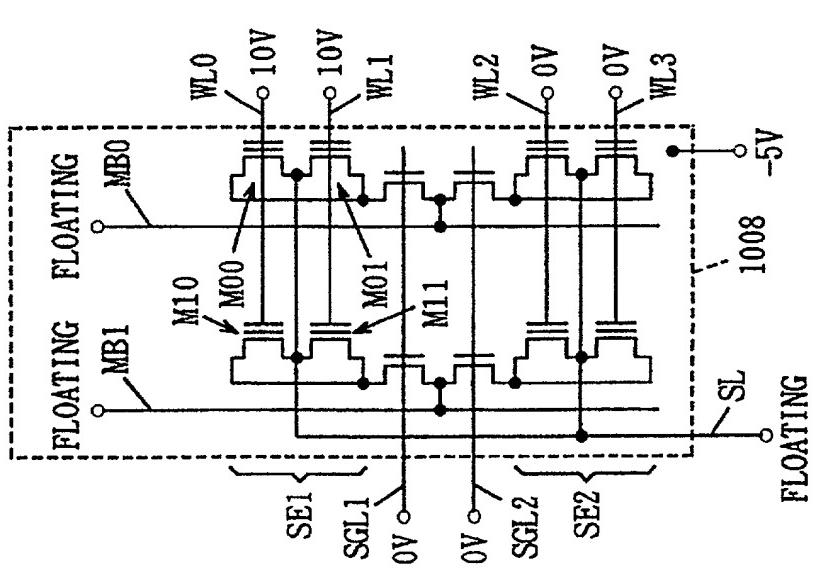


FIG. 21B

PROGRAM OPERATION

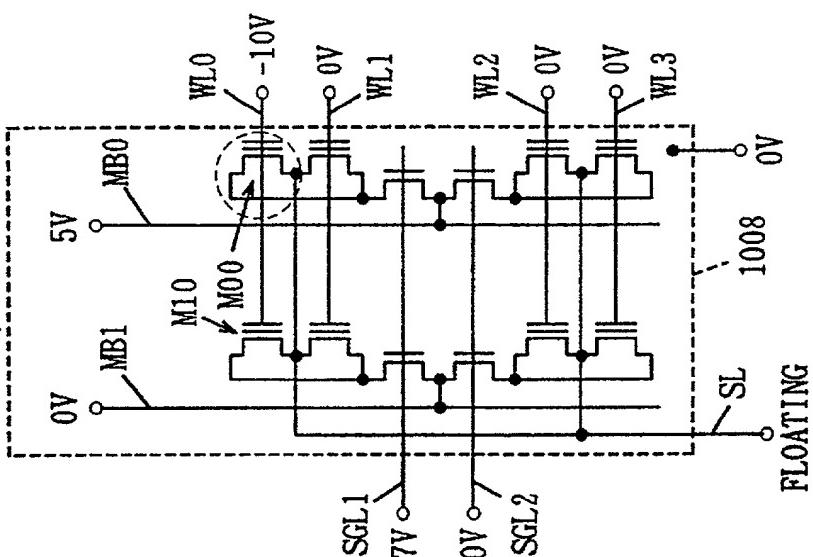


FIG. 21C

READ OPERATION

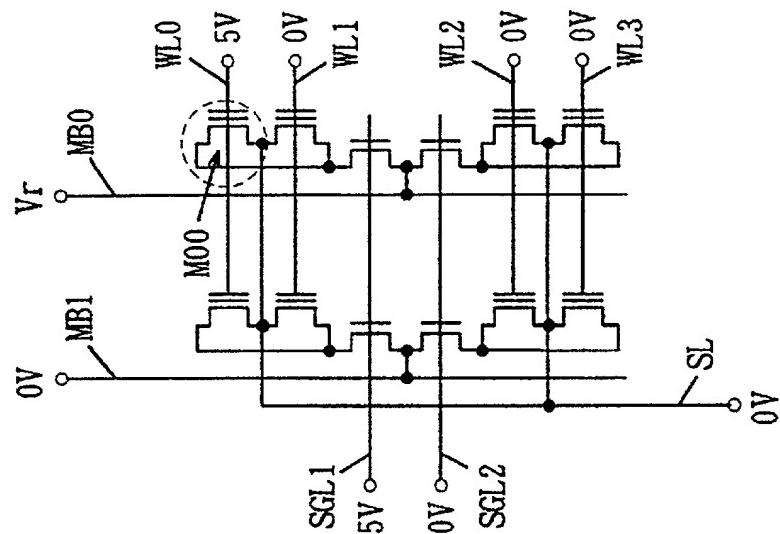


FIG. 22

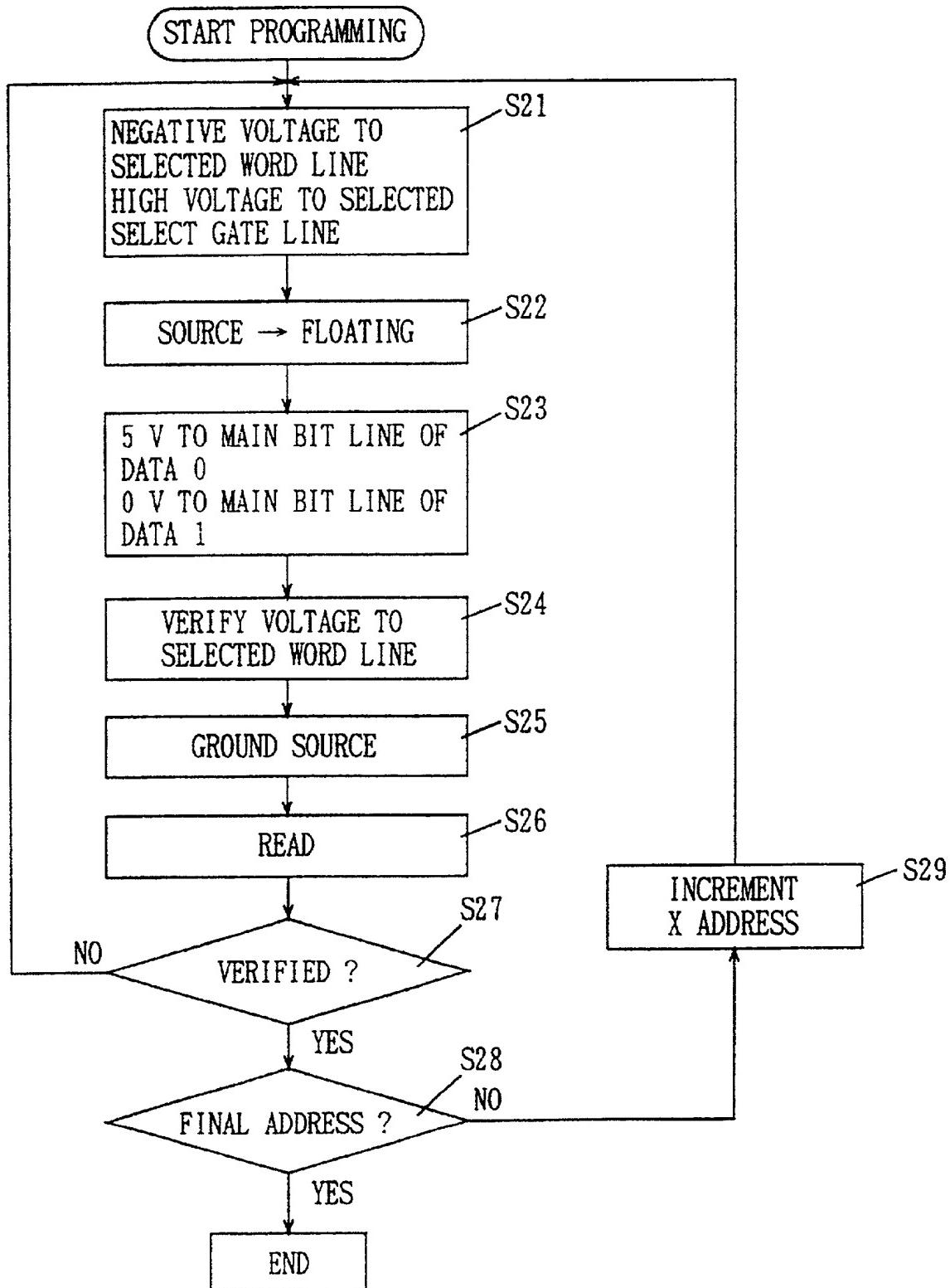
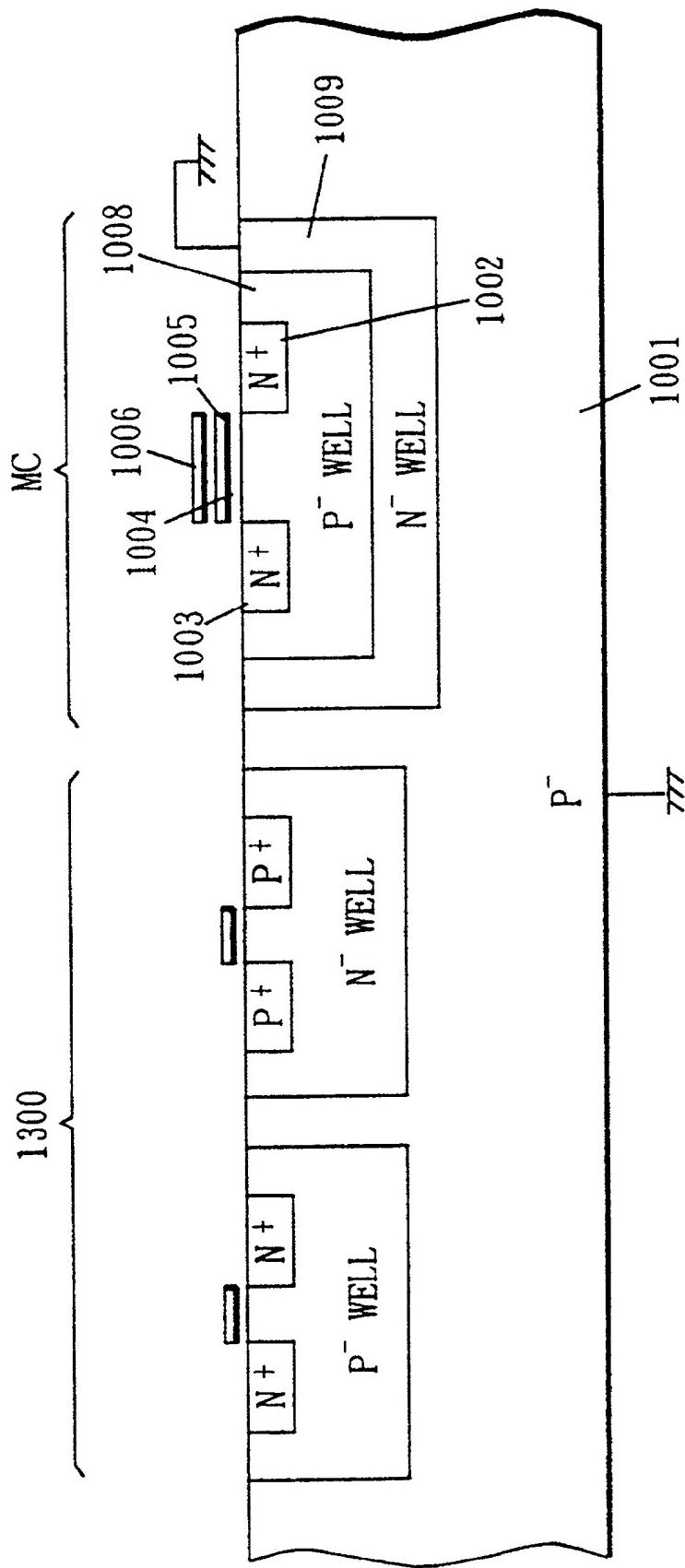


FIG. 23



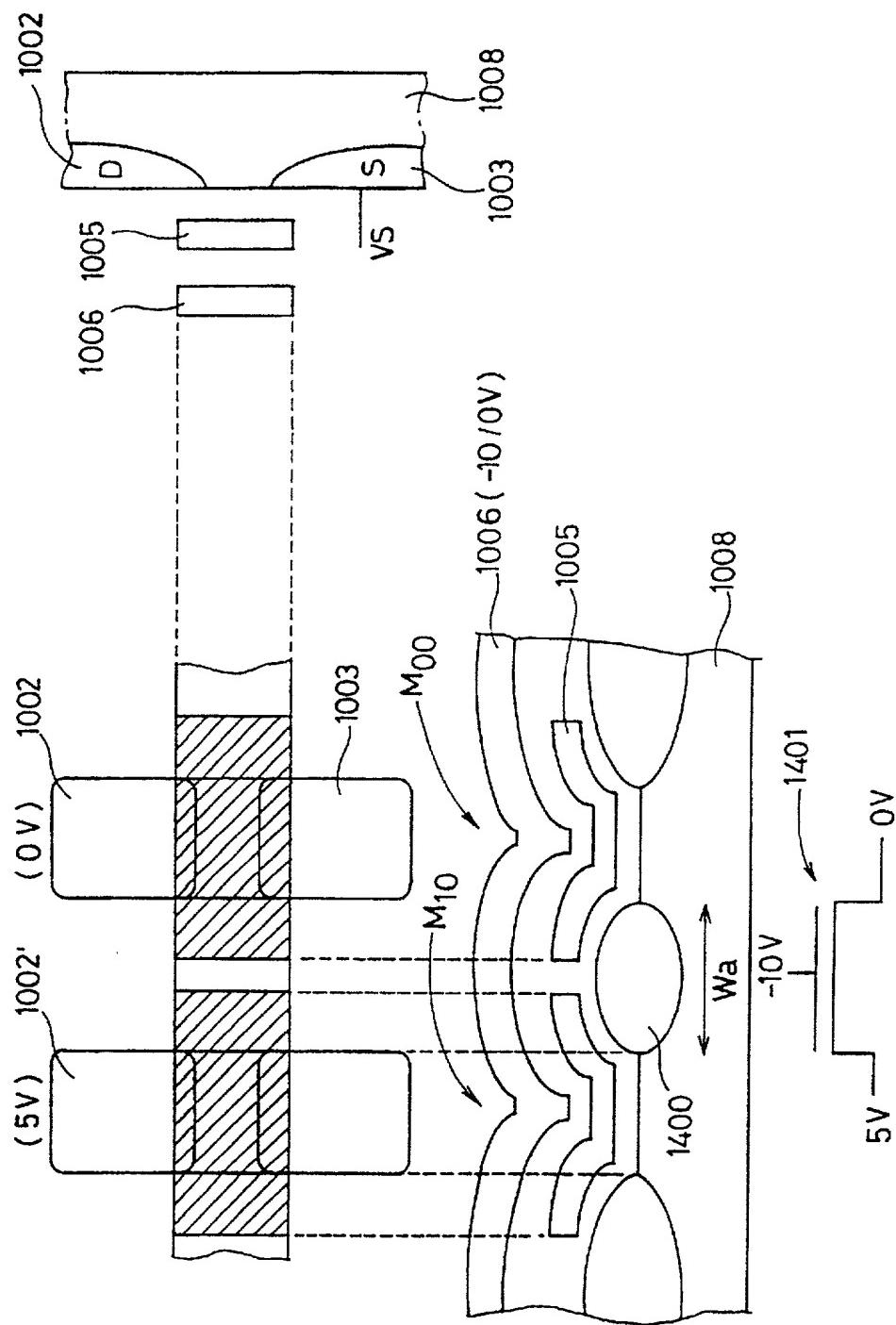


FIG. 24

FIG. 25

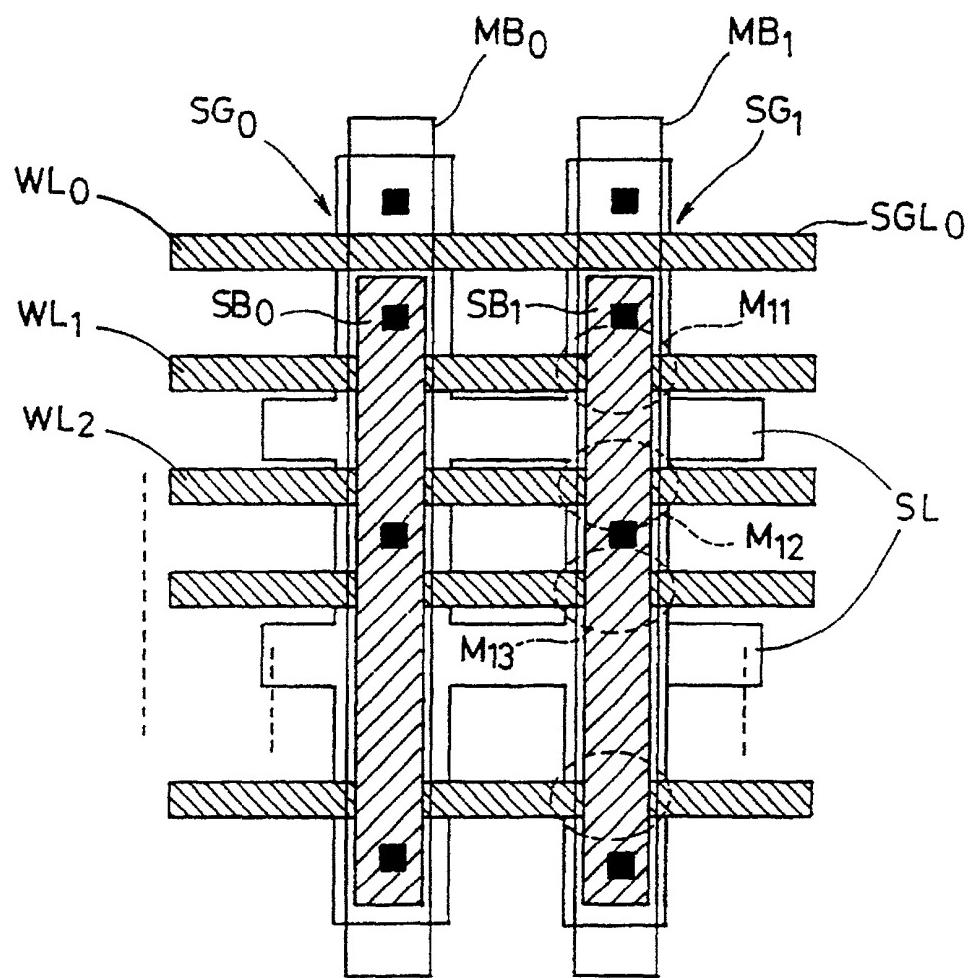


FIG. 26A

PROGRAM

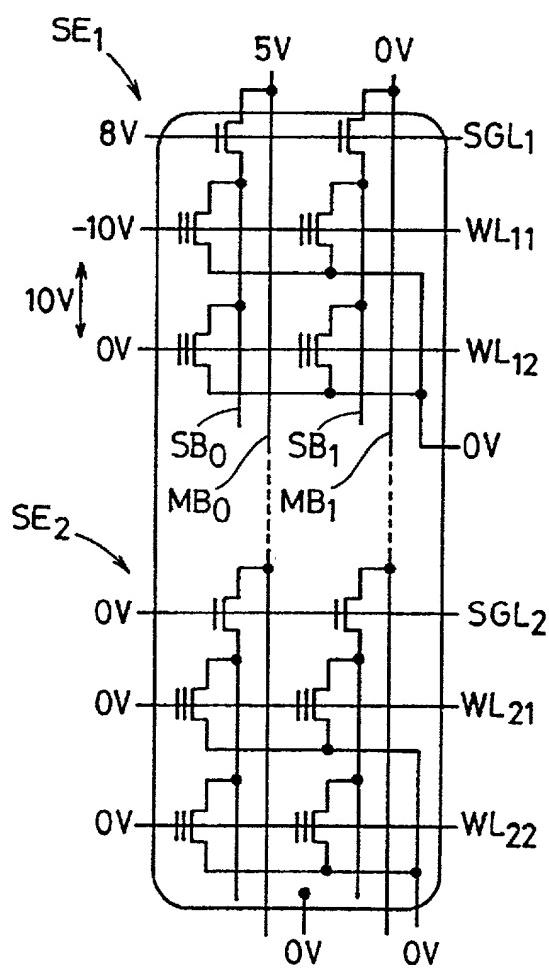


FIG. 26B

ERASE

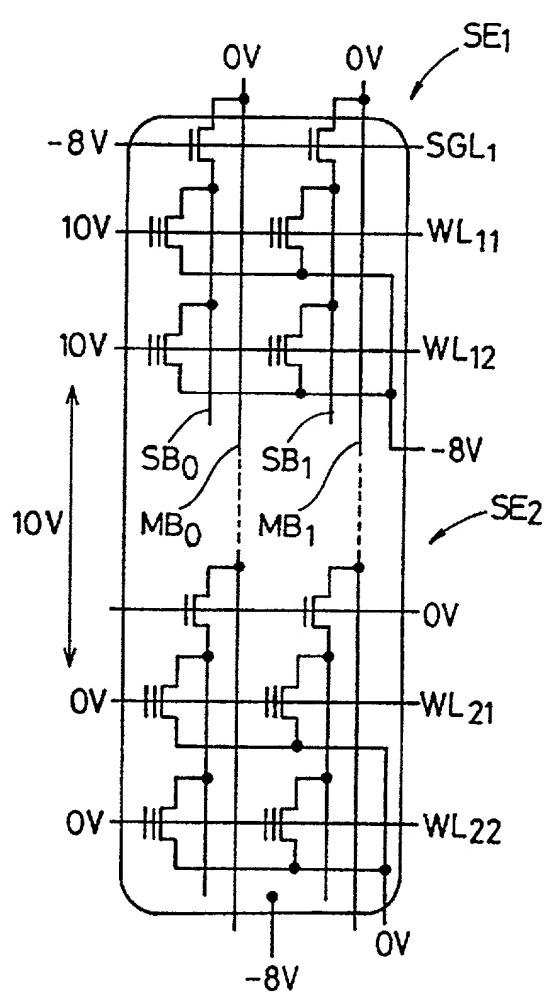


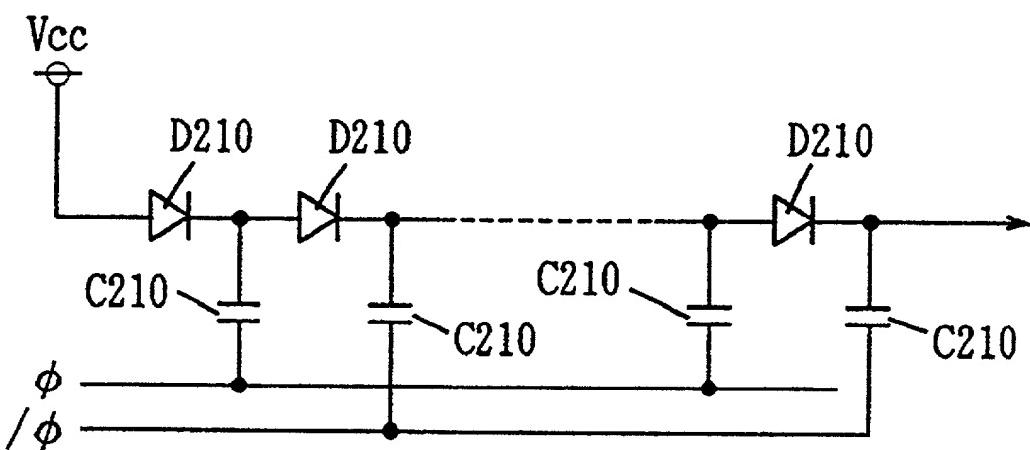
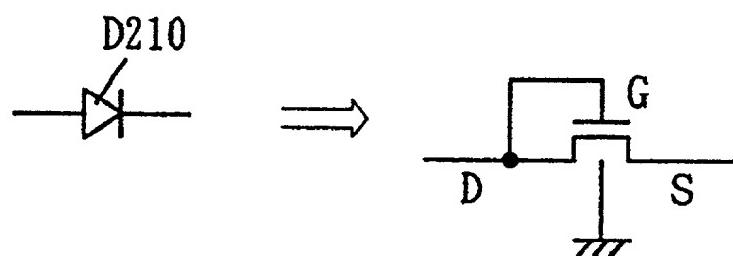
FIG. 27A**FIG. 27B**

FIG. 28

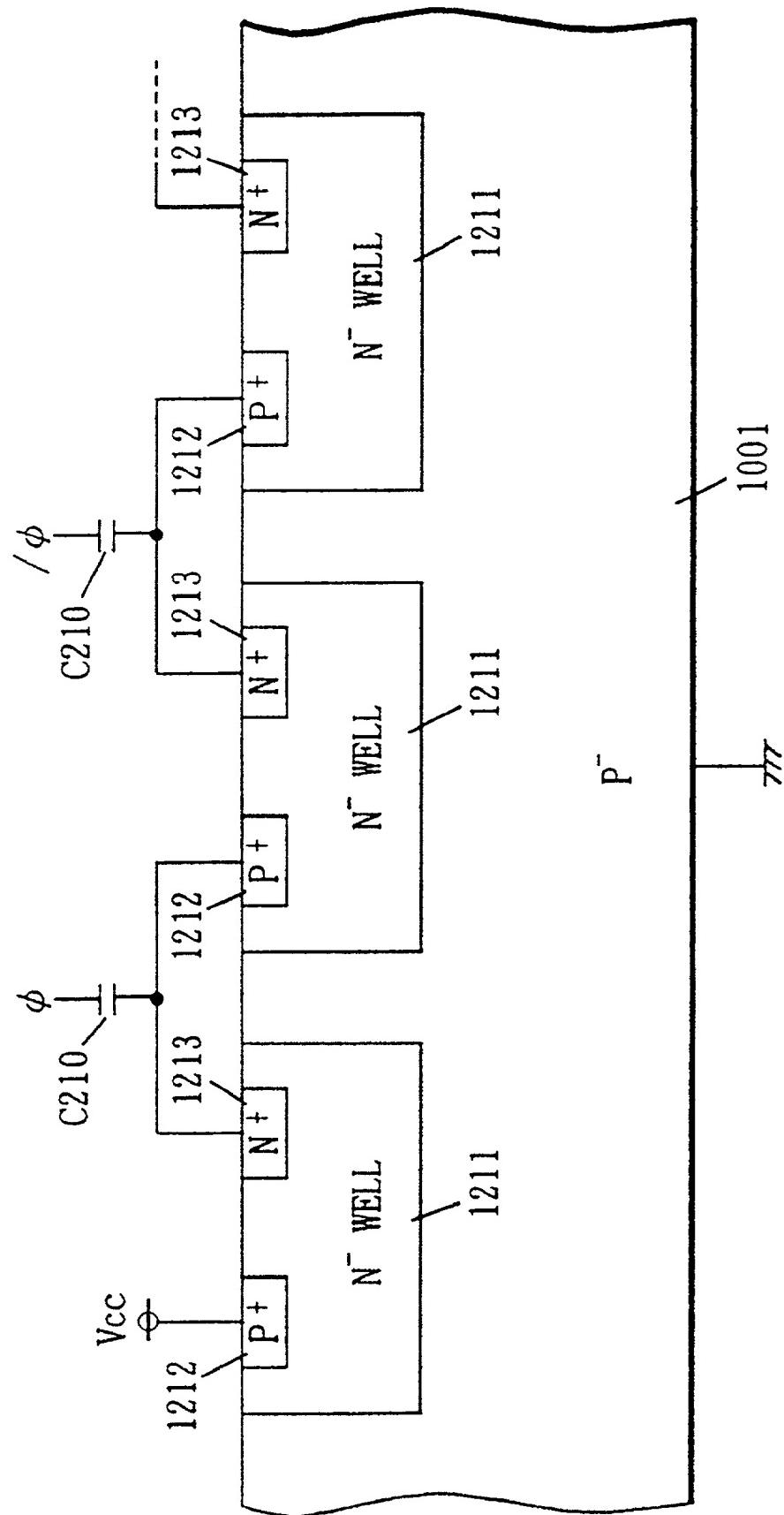


FIG. 29

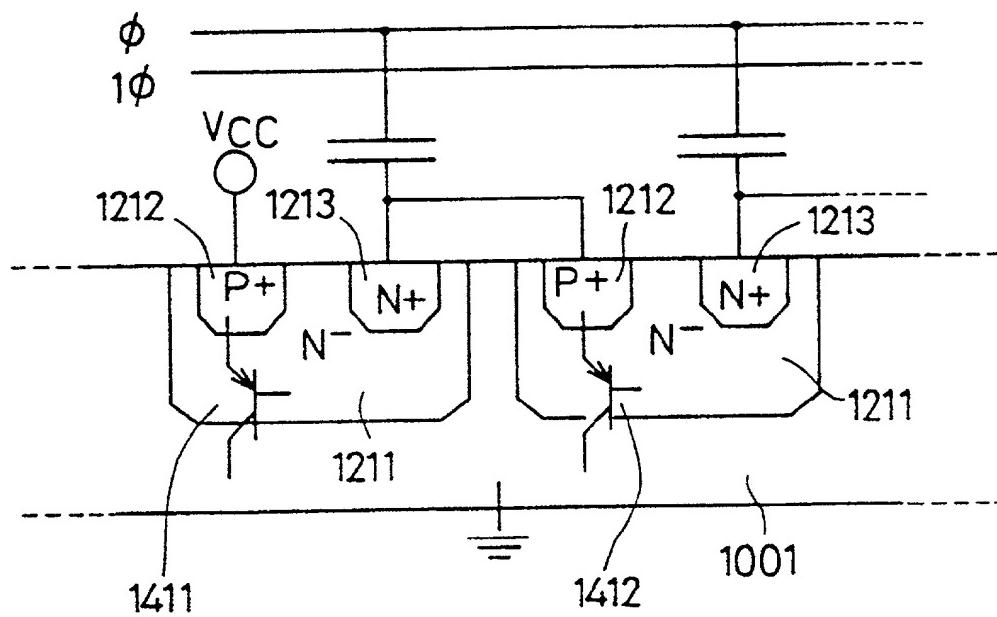


FIG. 30

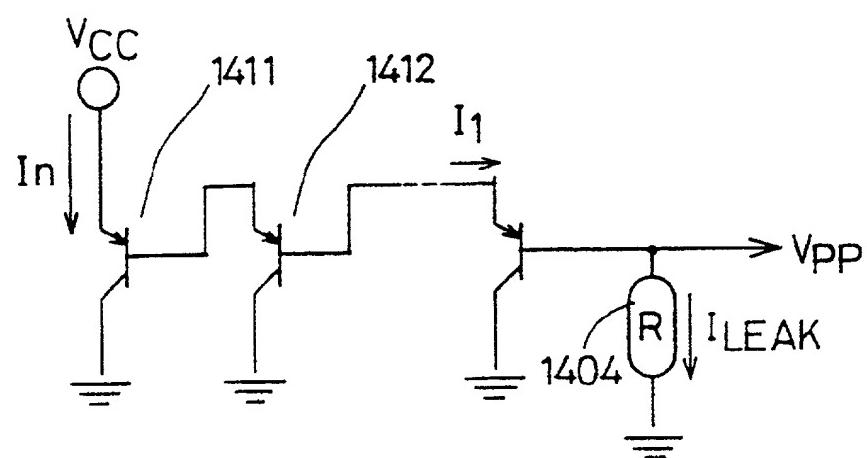


FIG. 31

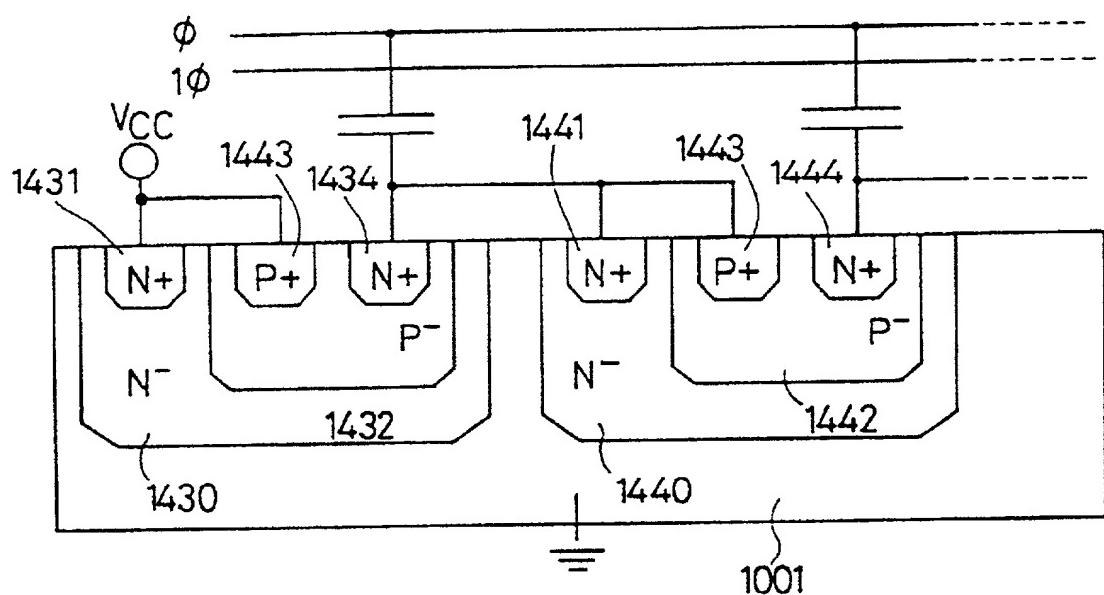


FIG. 32A

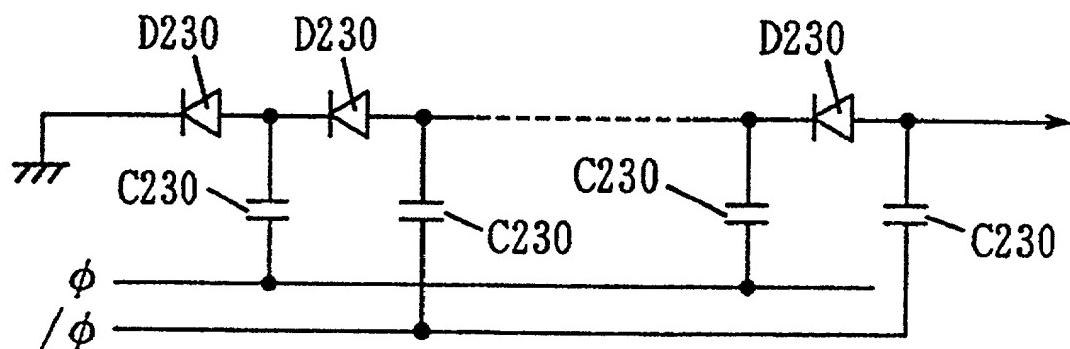


FIG. 32B

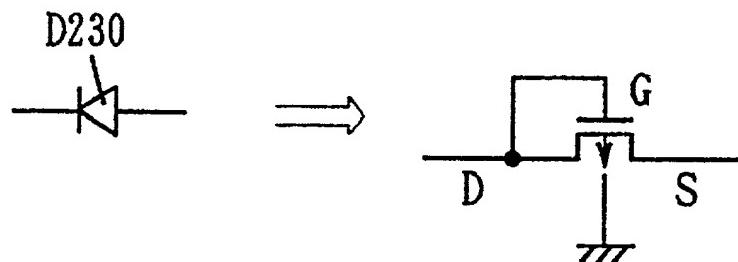


FIG. 33

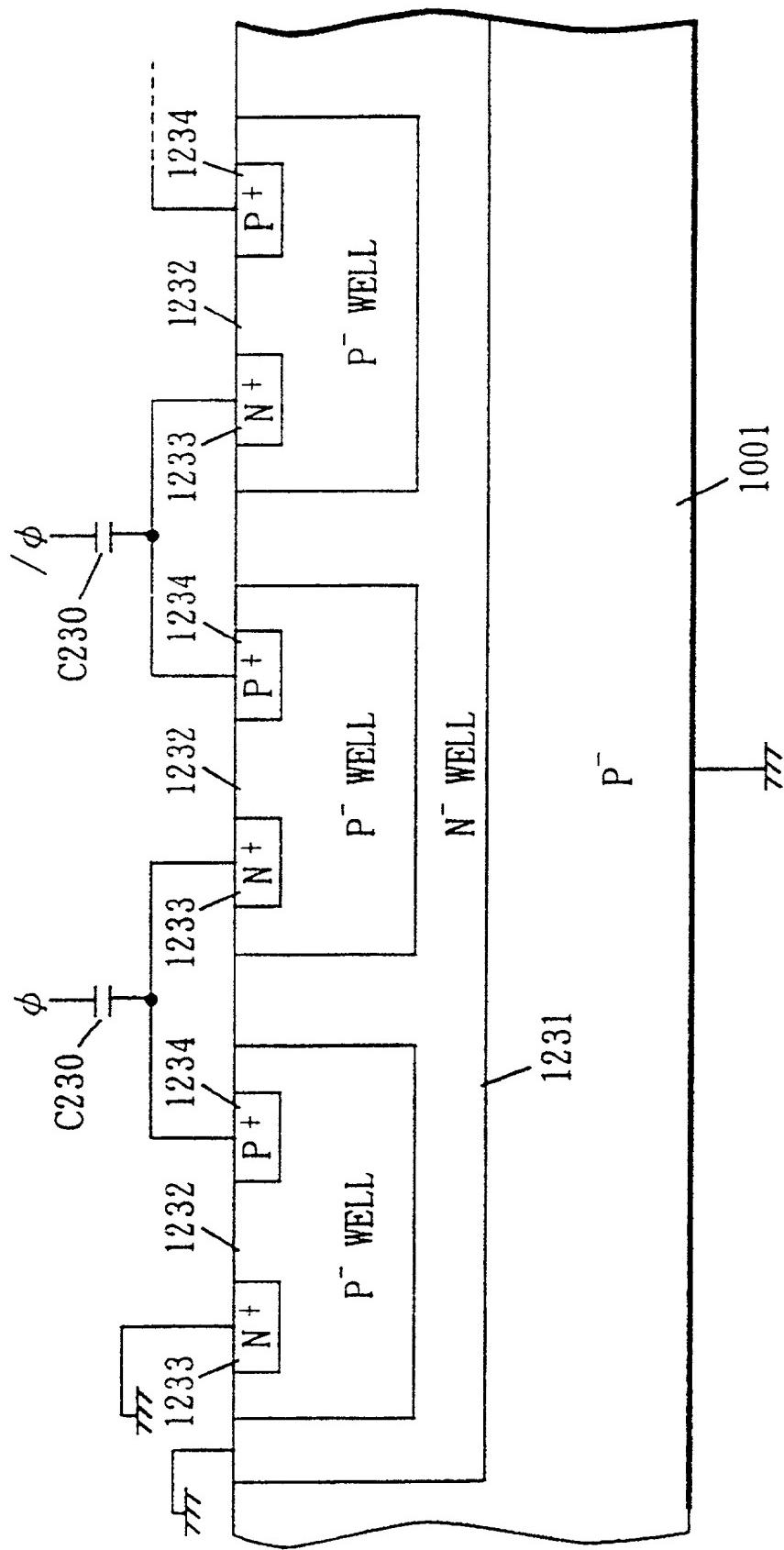
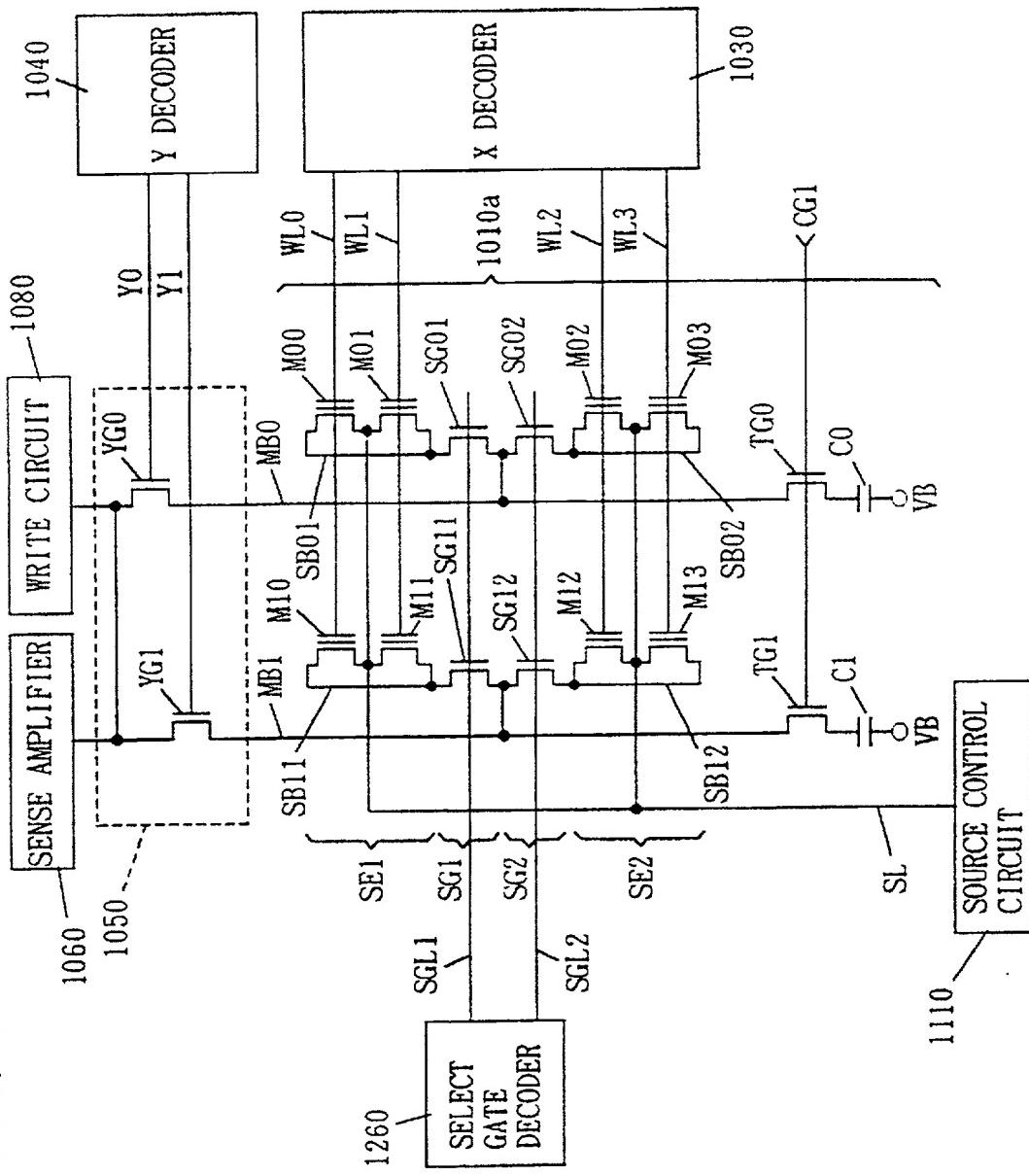
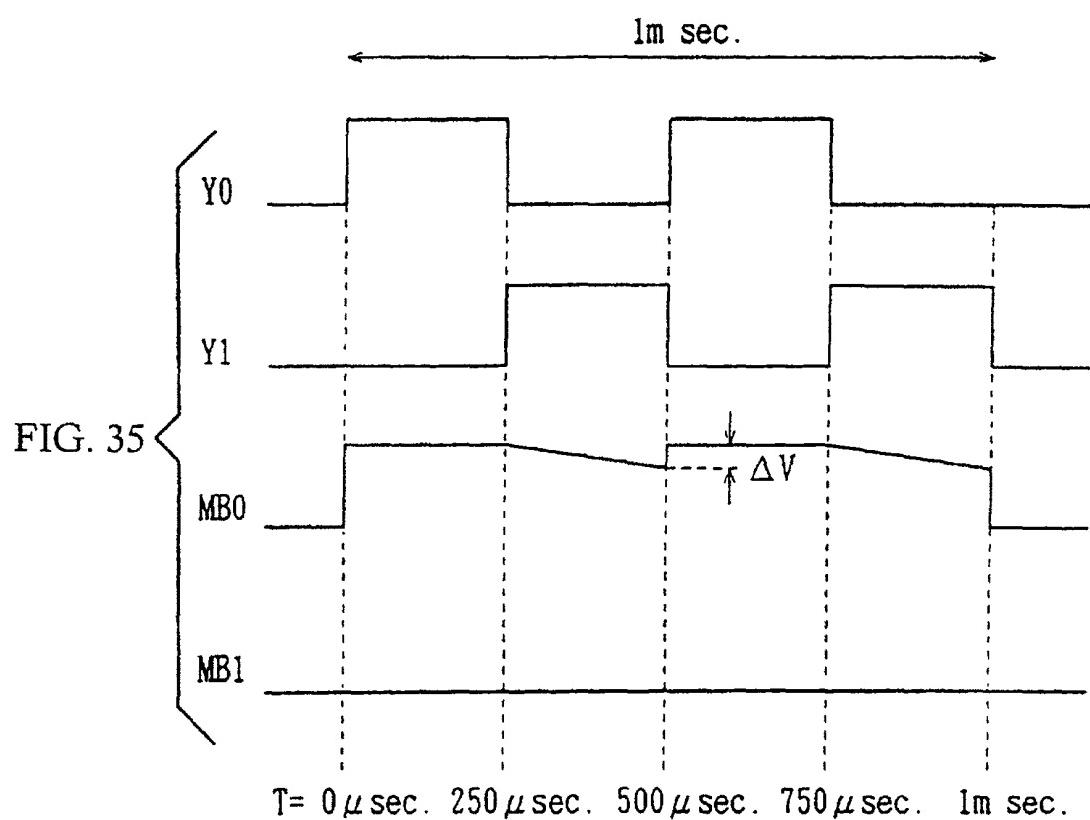


FIG. 34





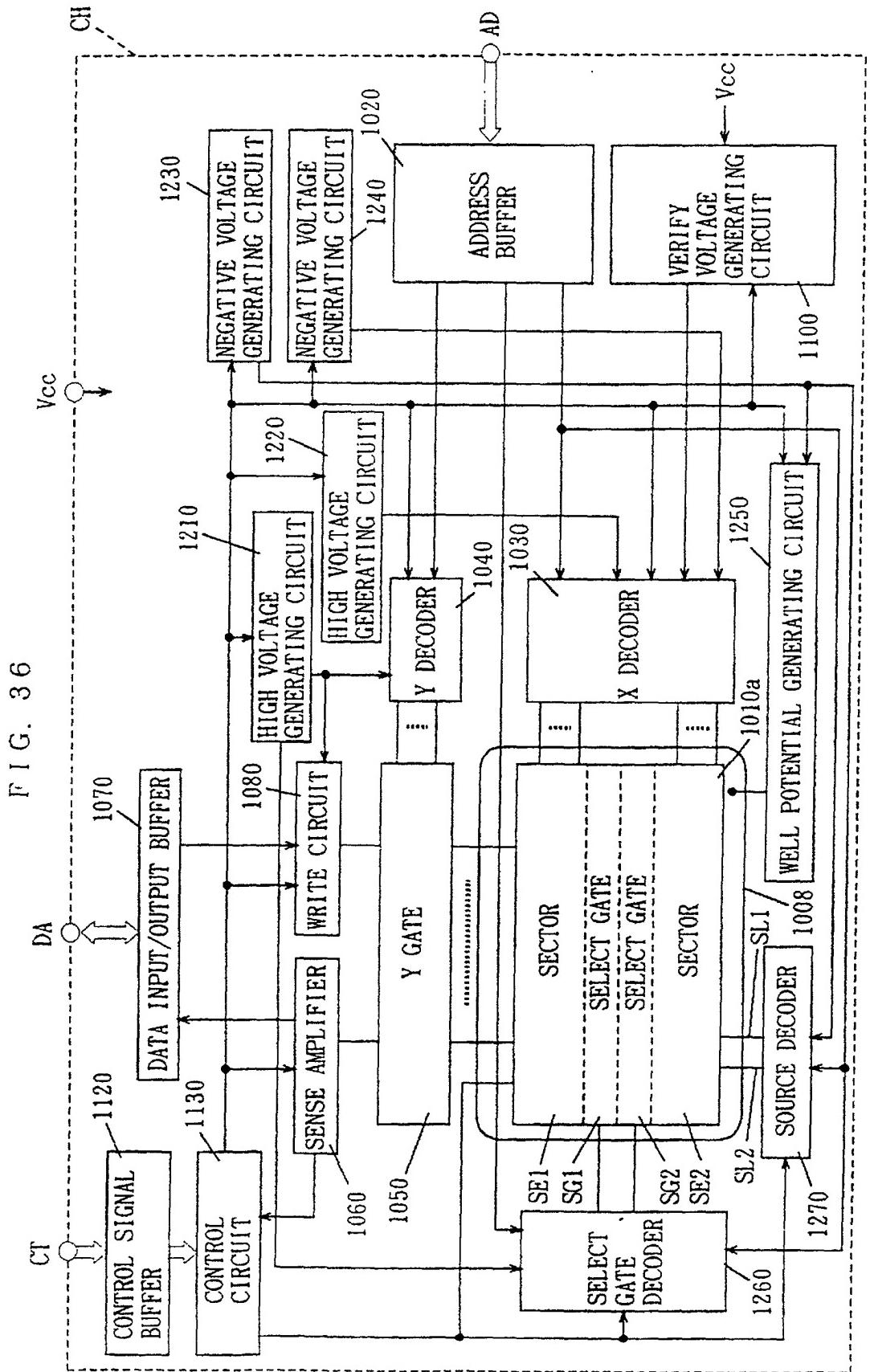


FIG. 37

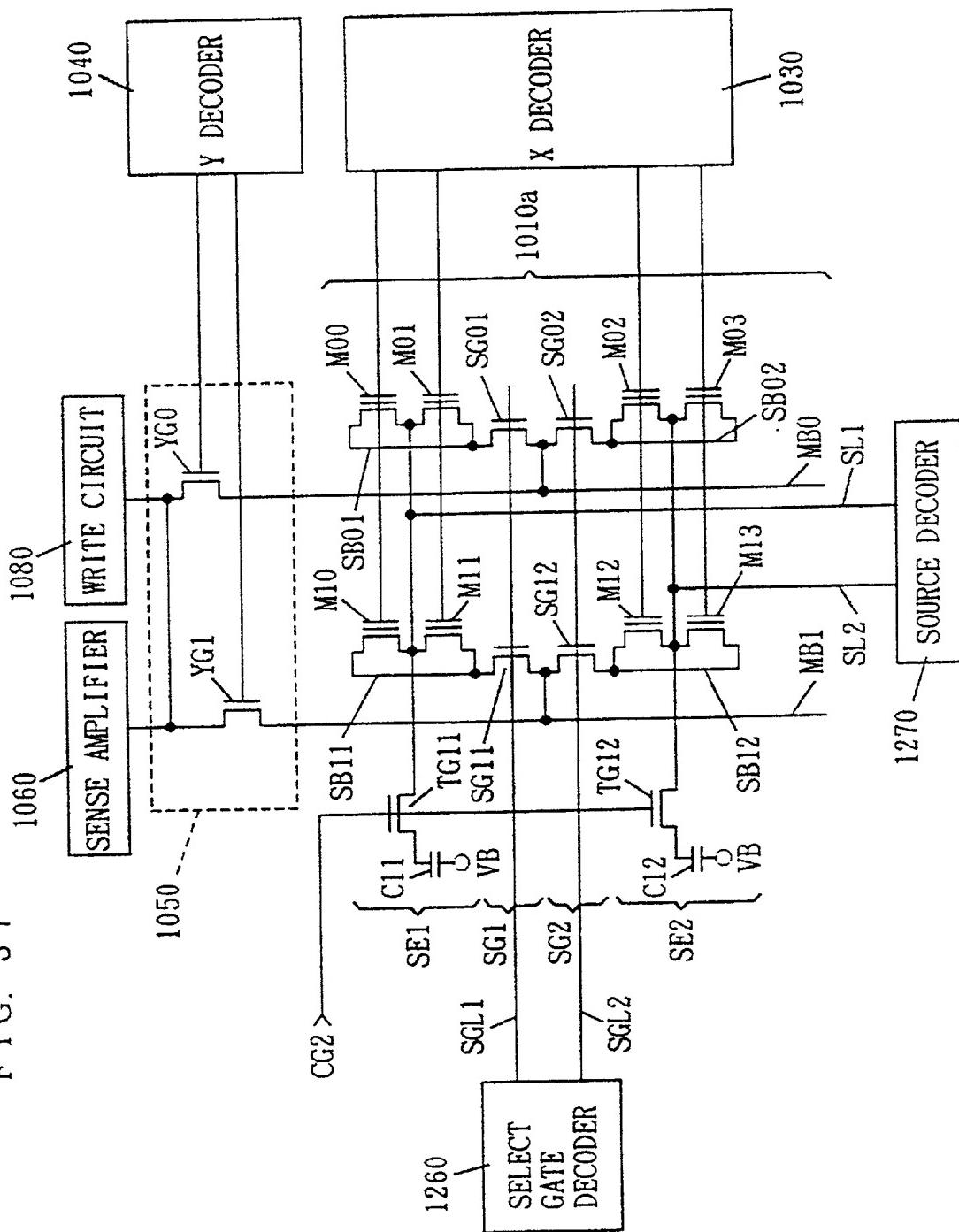


FIG. 38

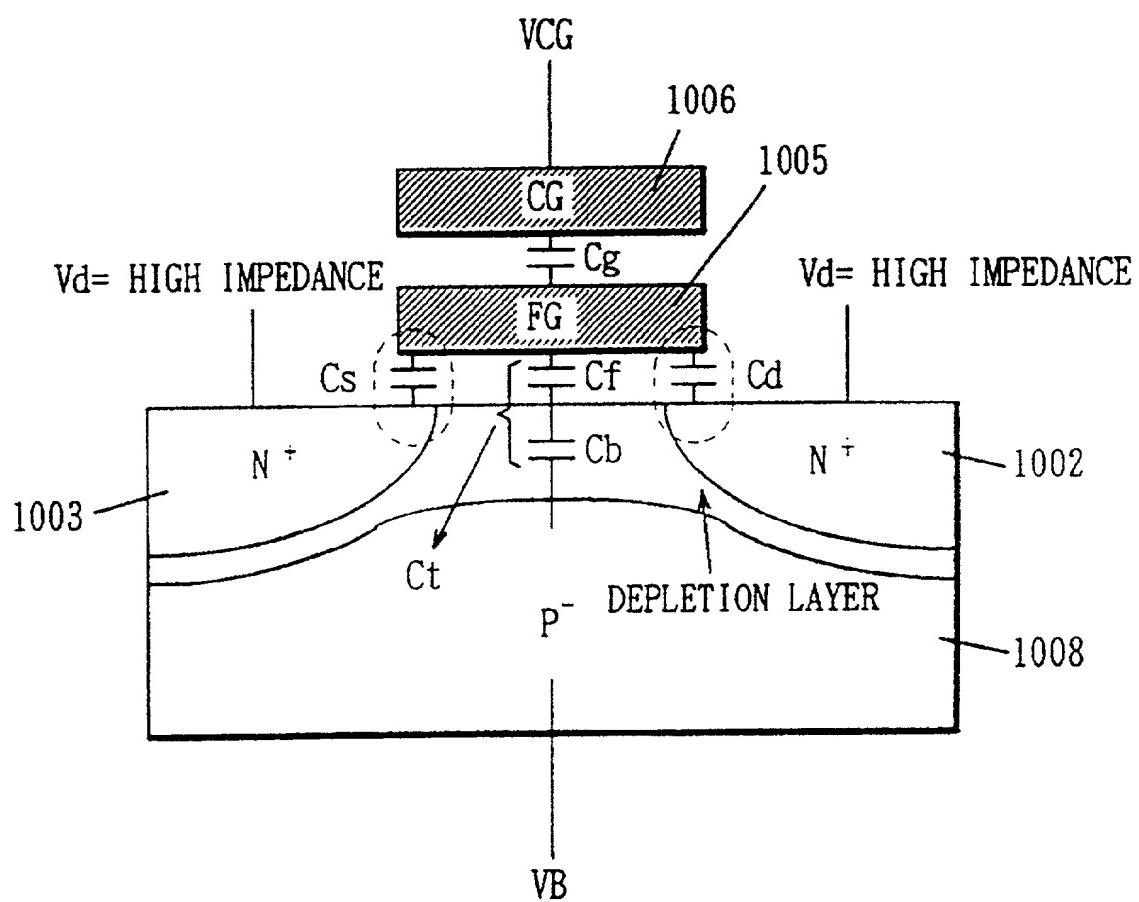


FIG. 39A

[ERASING WITH NO GATE BIRD'S BEAK]

(MEMORY CELL OF SELECTED SECTOR)

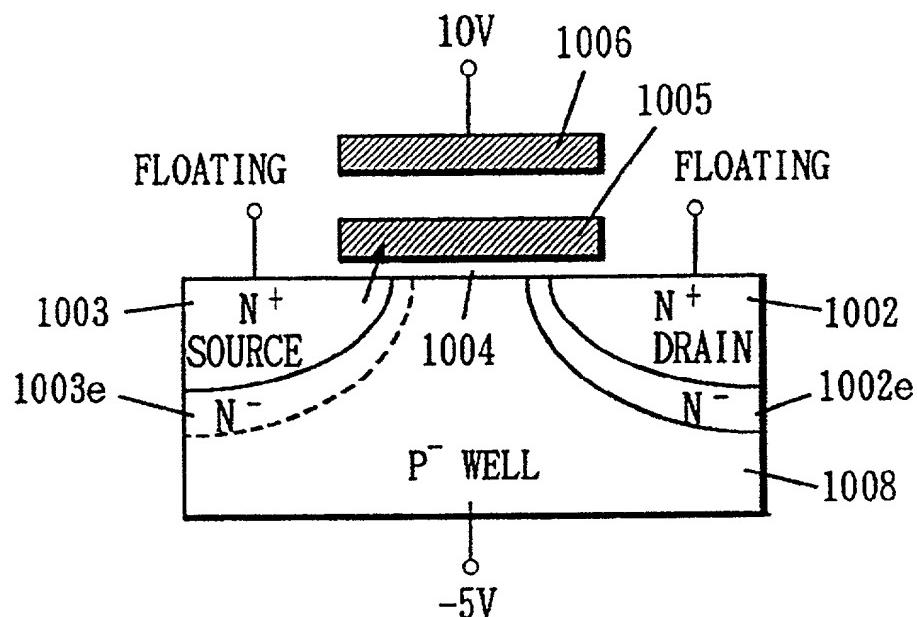


FIG. 39B

(MEMORY CELL OF NONSELECTED SECTOR)

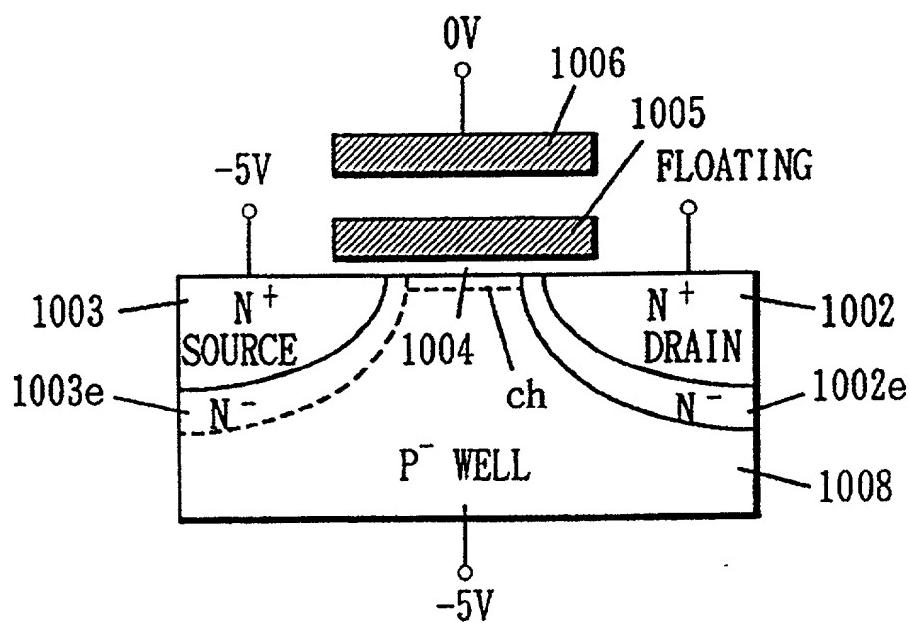


FIG. 40

[WITH NO GATE BIRD'S BEAK]

(BATCH SECTOR ERASE)

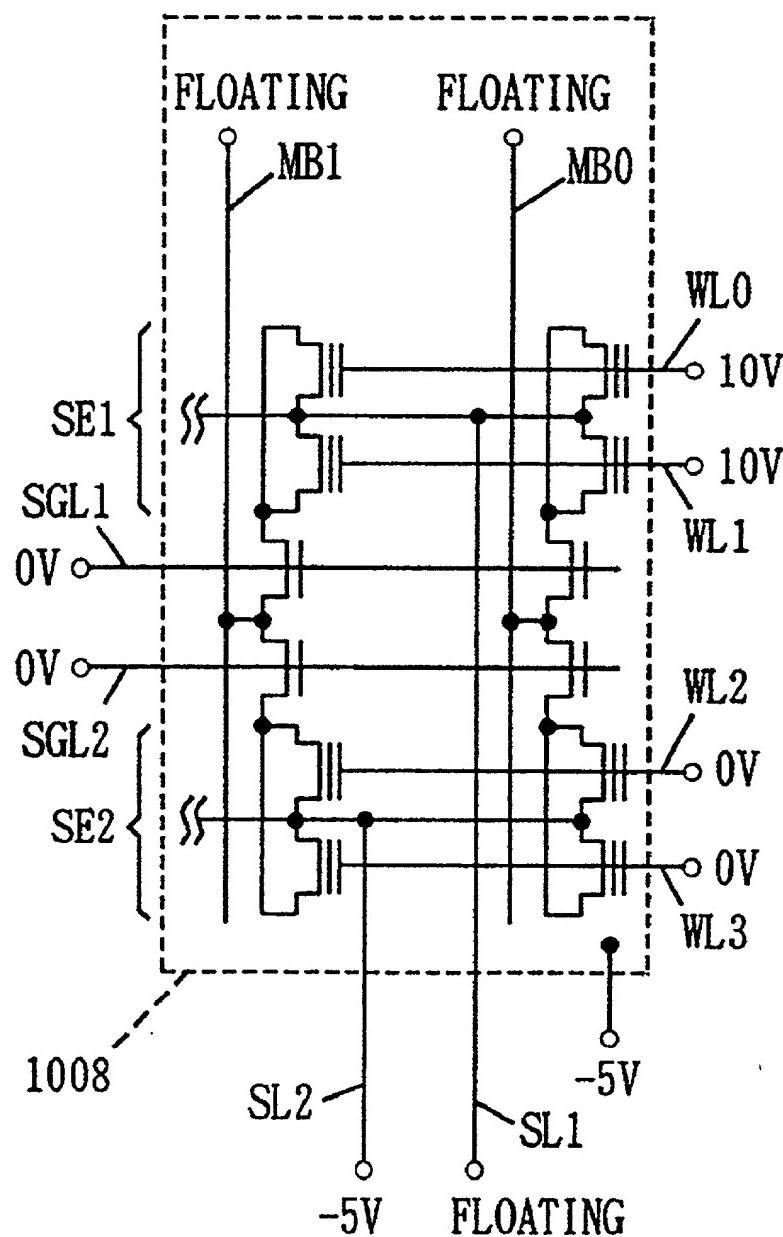
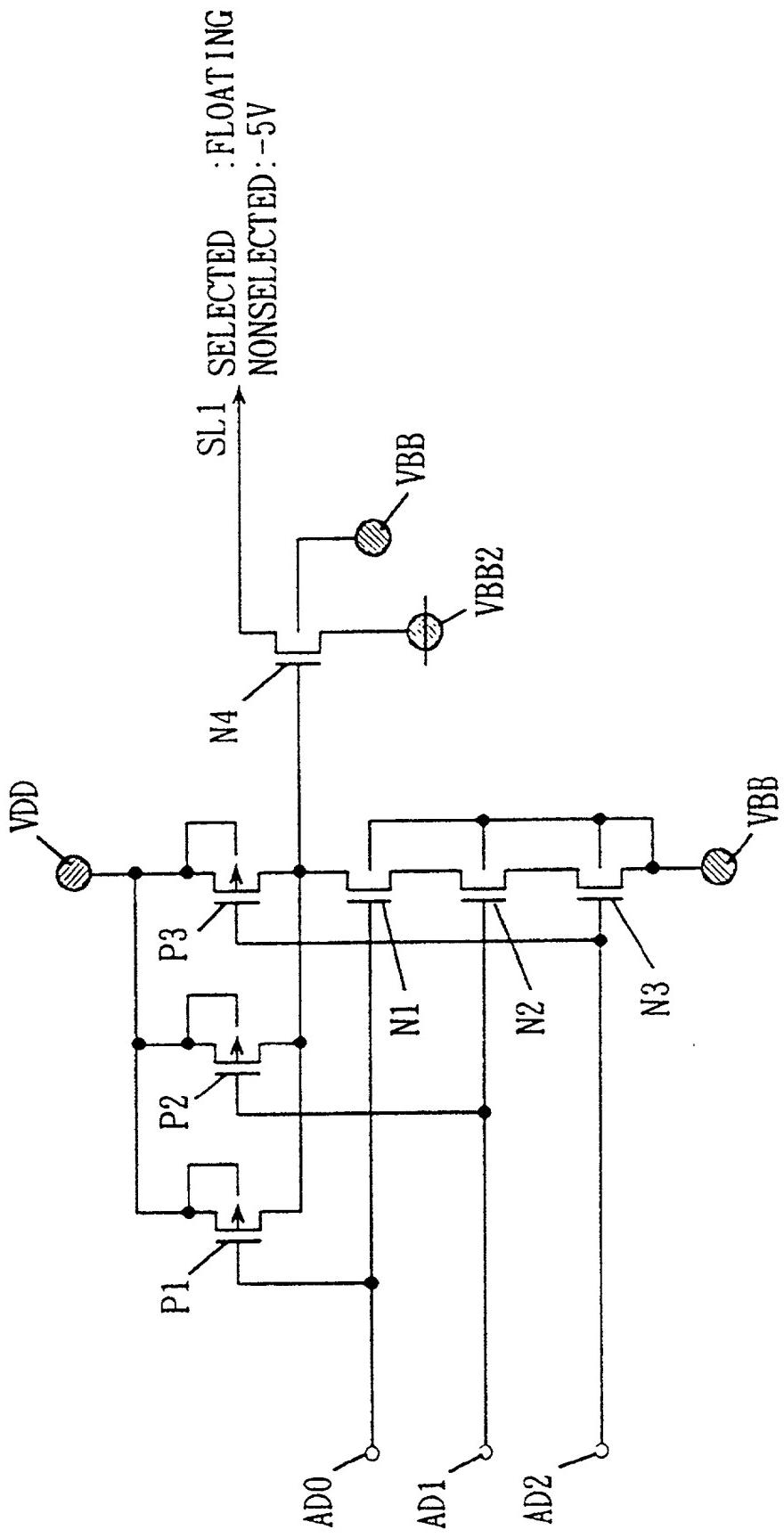


FIG. 41



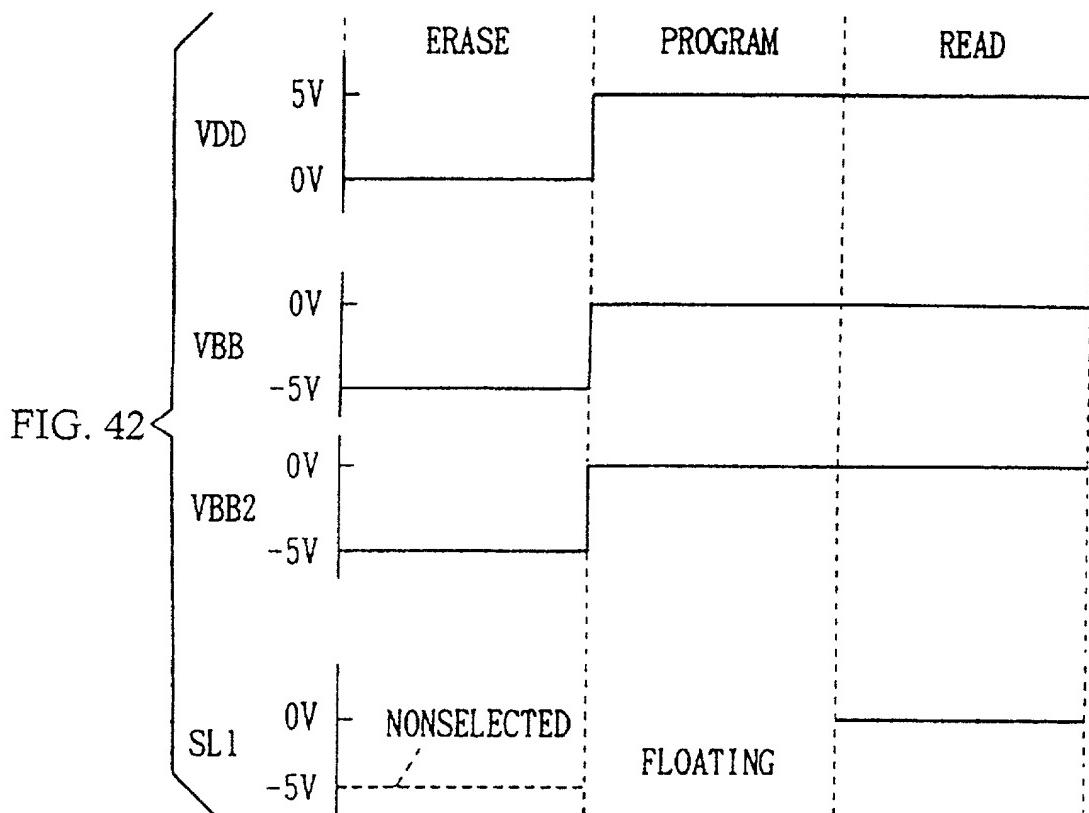


FIG. 43

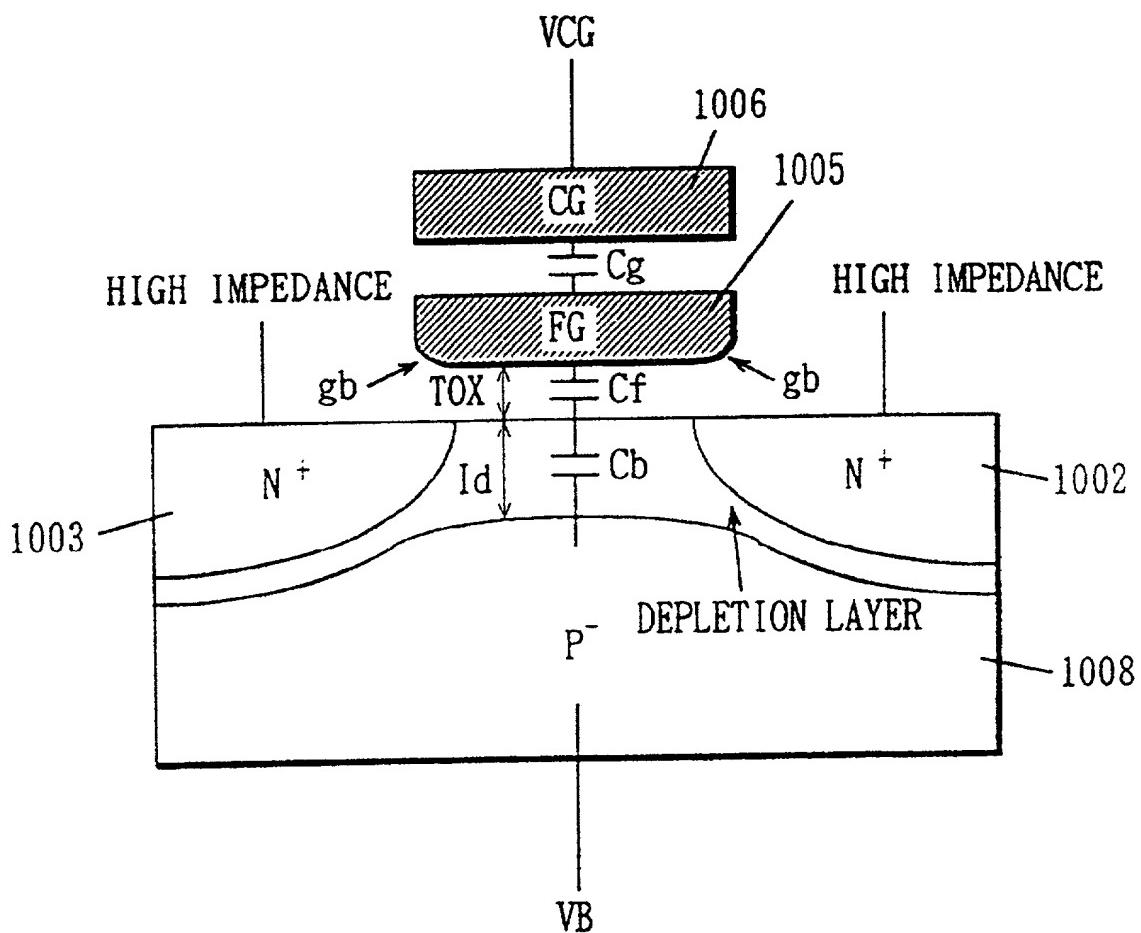


FIG. 44A

[ERASING WITH GATE BIRD'S BEAK]

(MEMORY CELL OF SELECTED SECTOR)

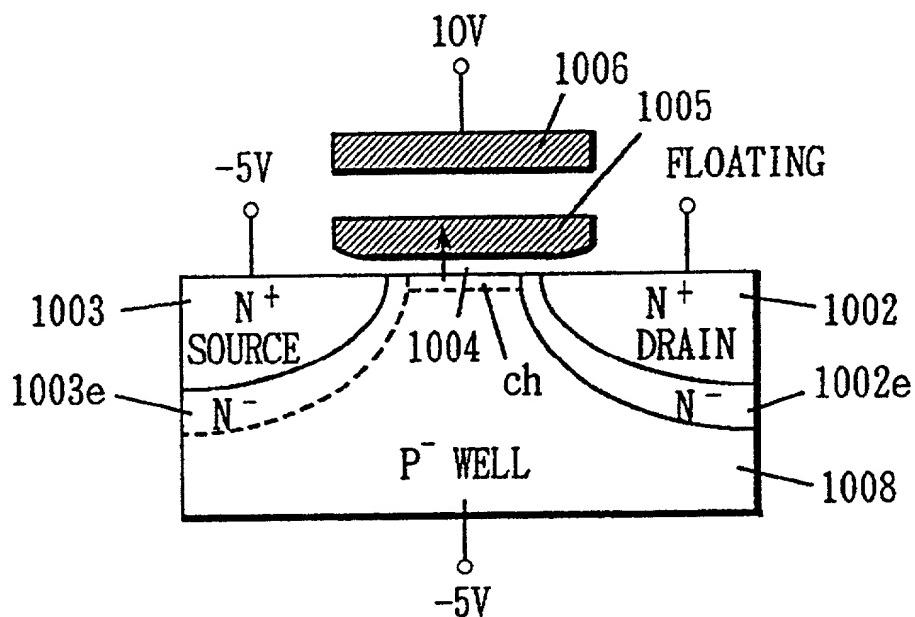


FIG. 44B

(MEMORY CELL OF NONSELECTED SECTOR)

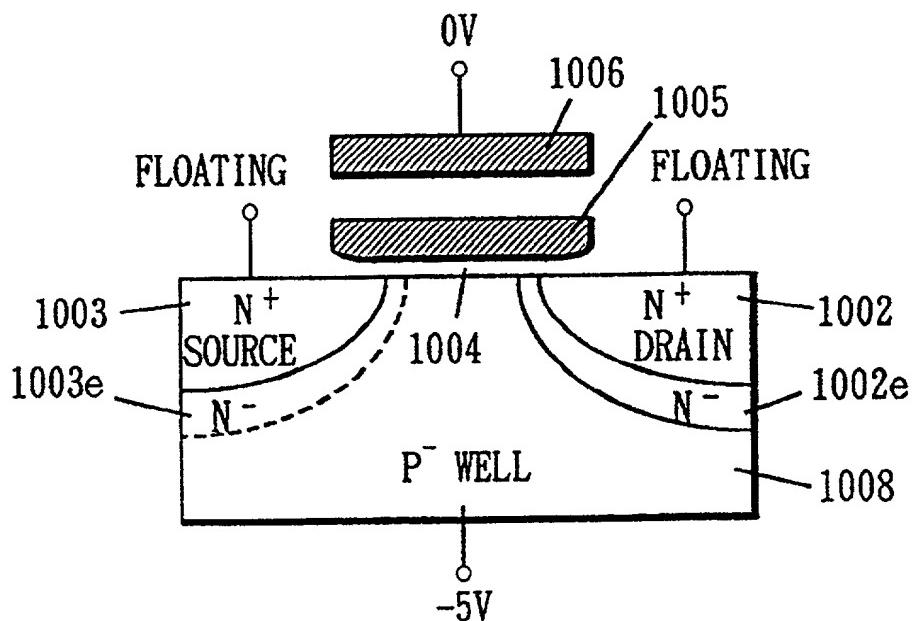


FIG. 45

[WITH GATE BIRD'S BEAK]

(BATCH SECTOR ERASE)

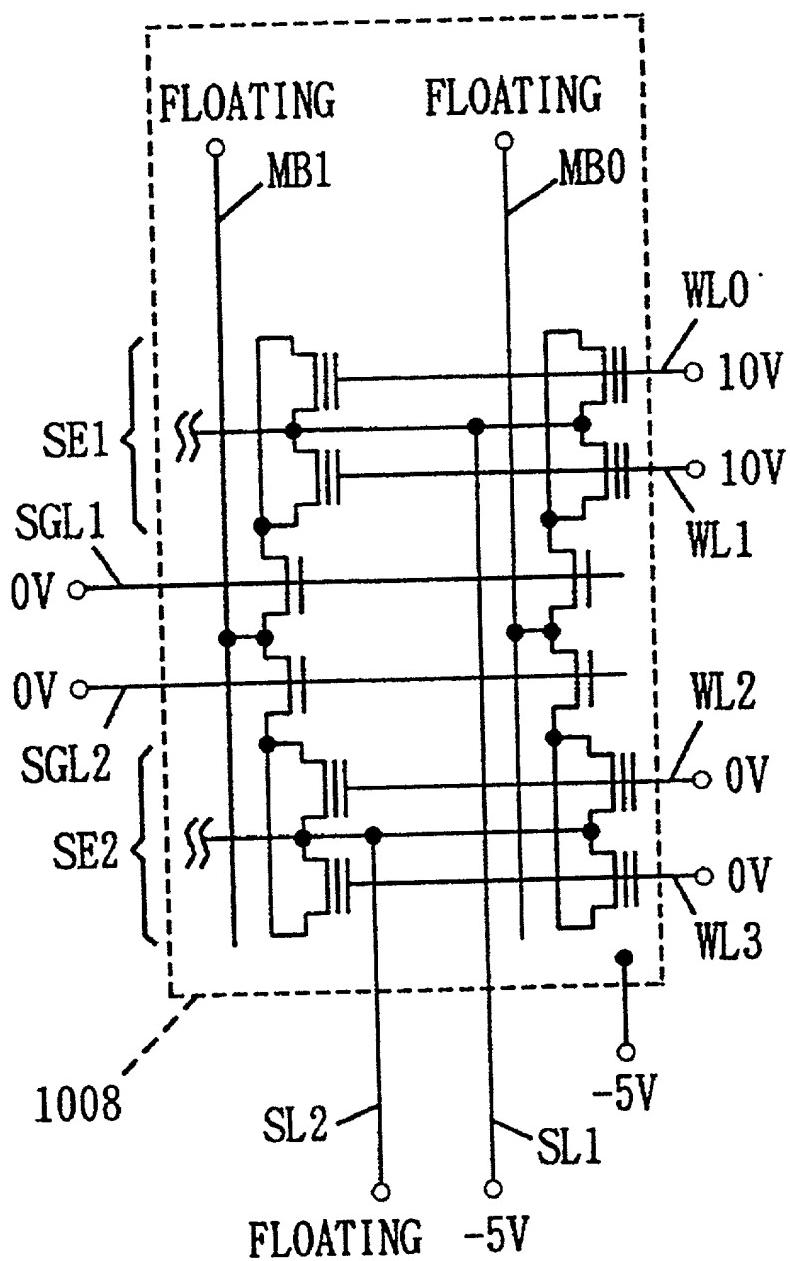
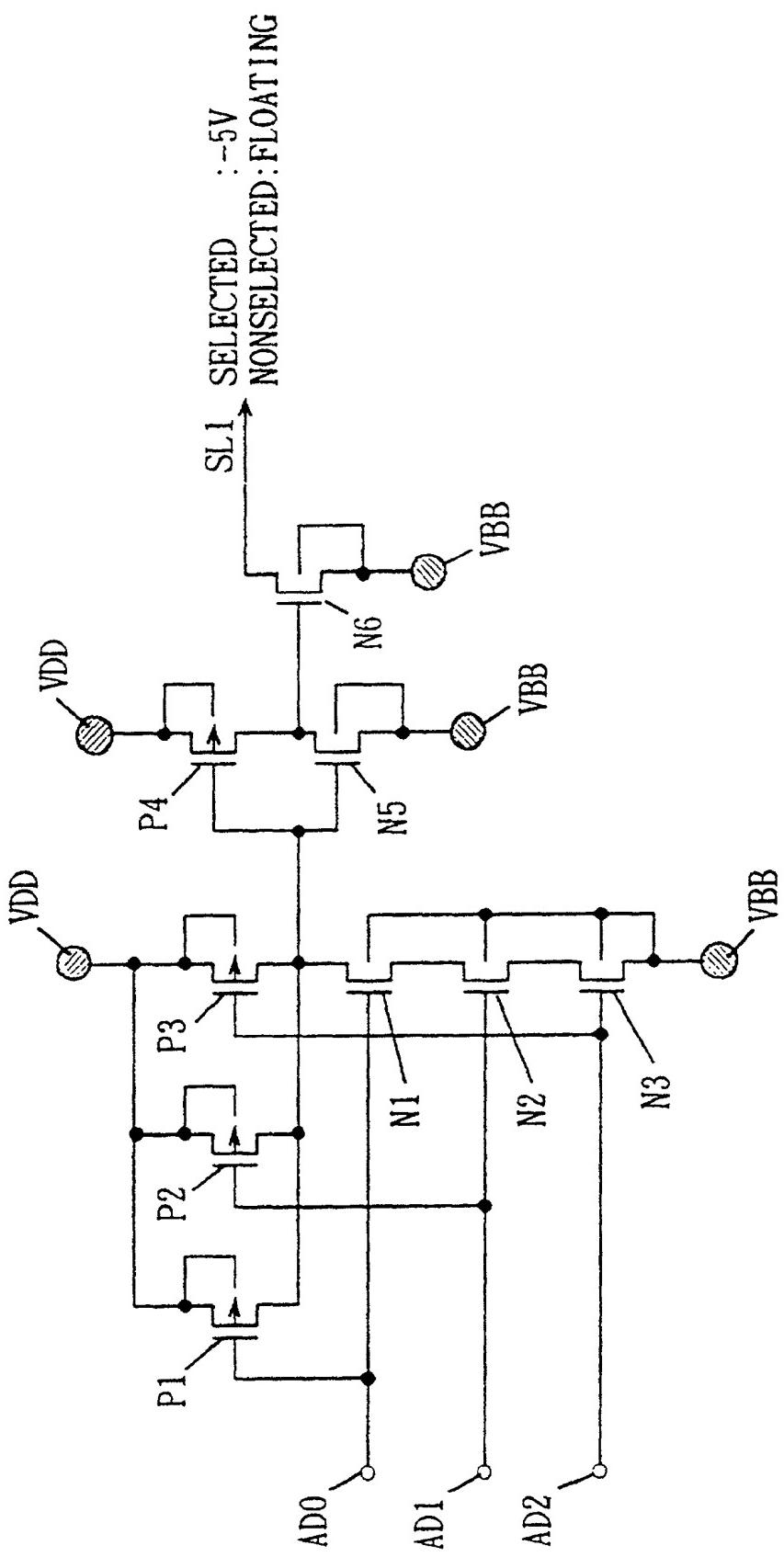


FIG. 46



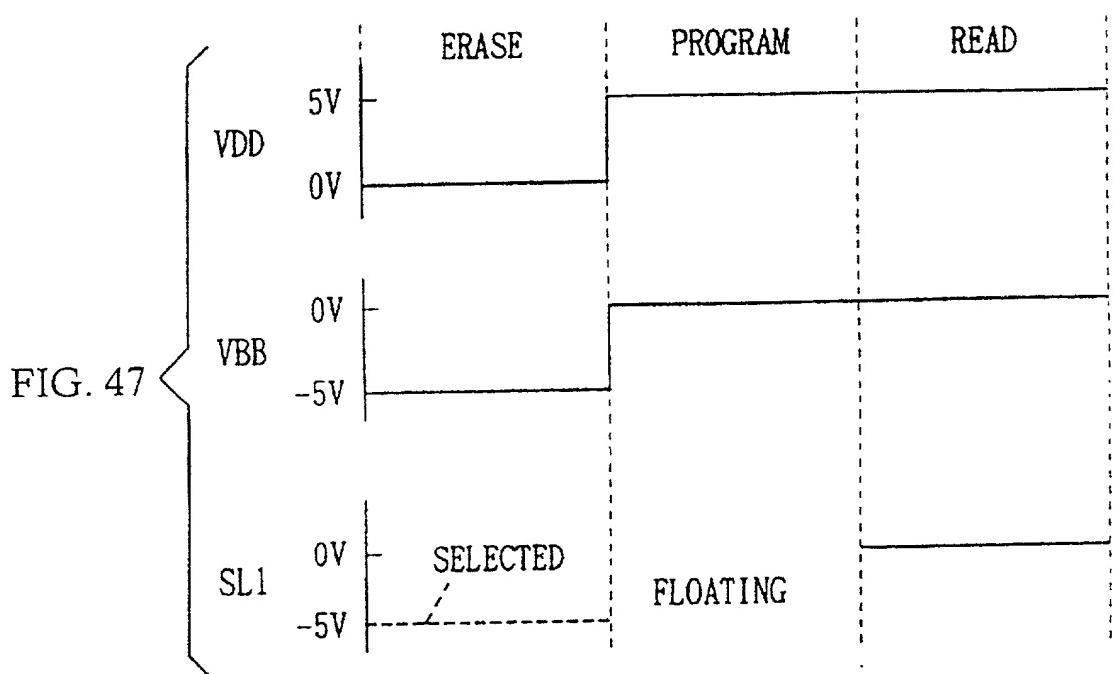


FIG. 48A

[ERASING WITH LOW WELL POTENTIAL]

(MEMORY CELL OF SELECTED SECTOR)

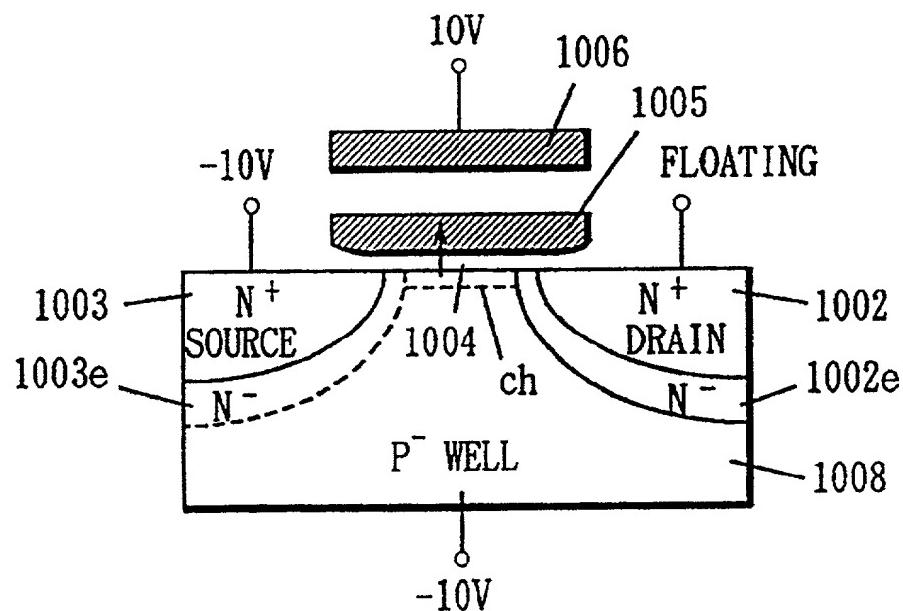


FIG. 48B

(MEMORY CELL OF NONSELECTED SECTOR)

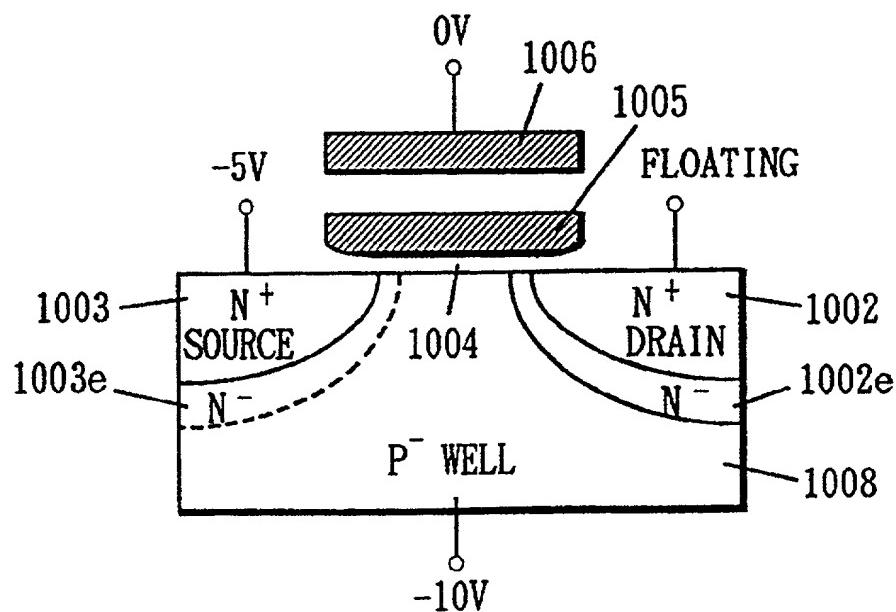


FIG. 49

[WITH LOW WELL POTENTIAL]

(BATCH SECTOR ERASE)

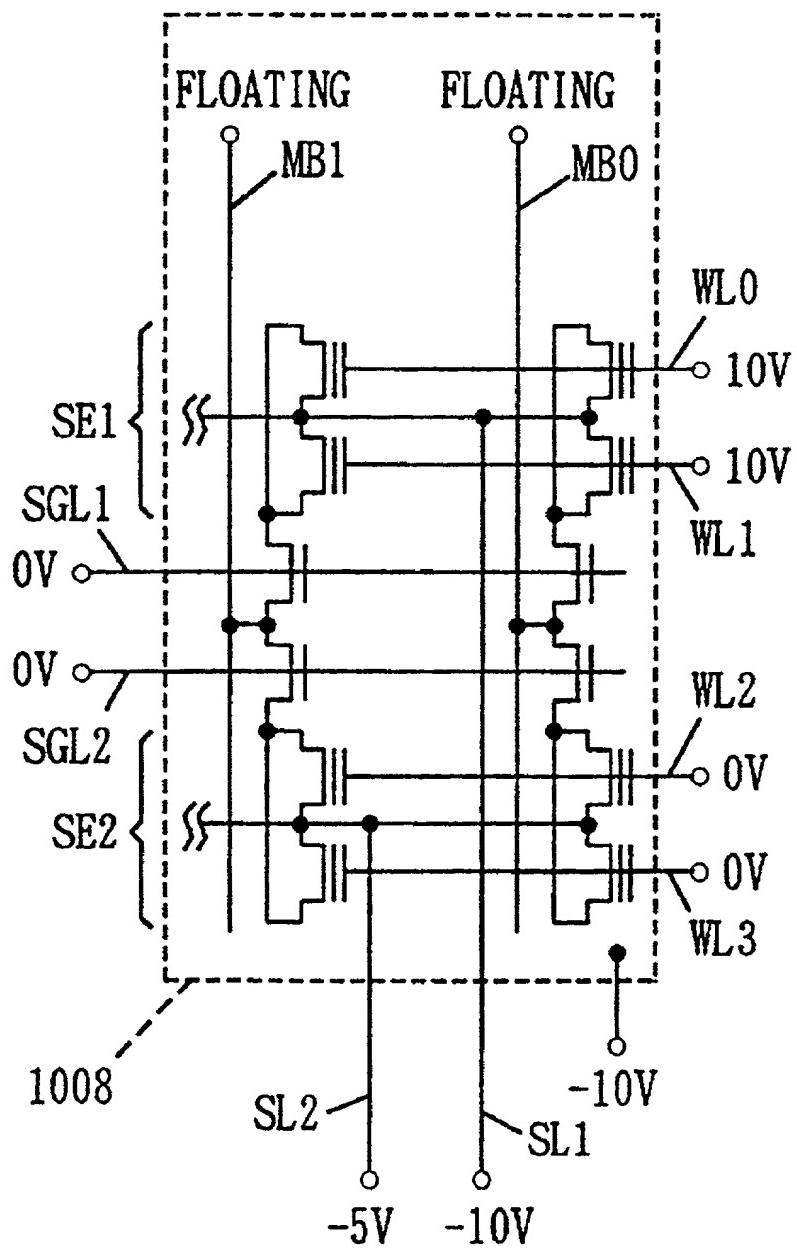


FIG. 50

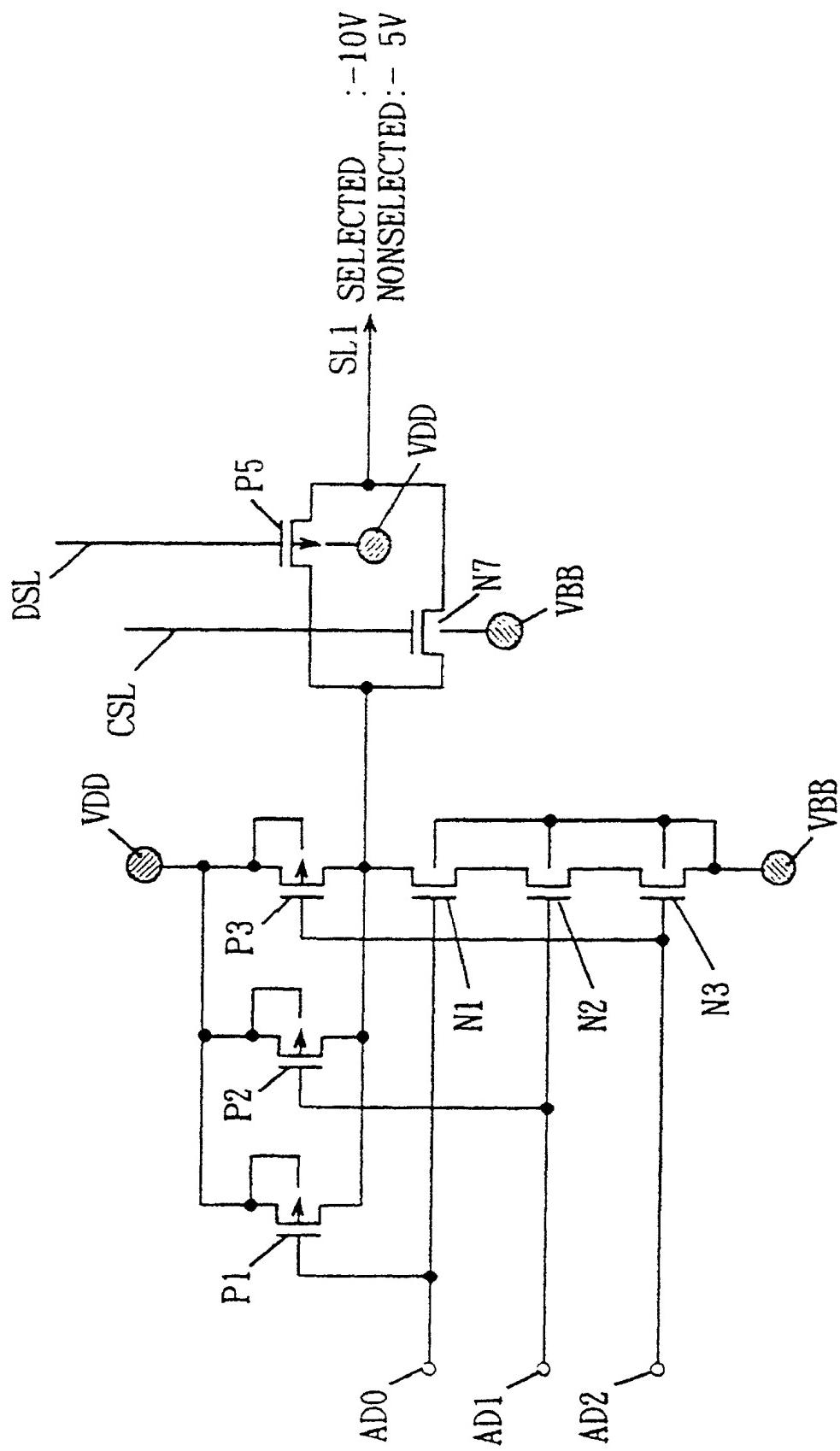
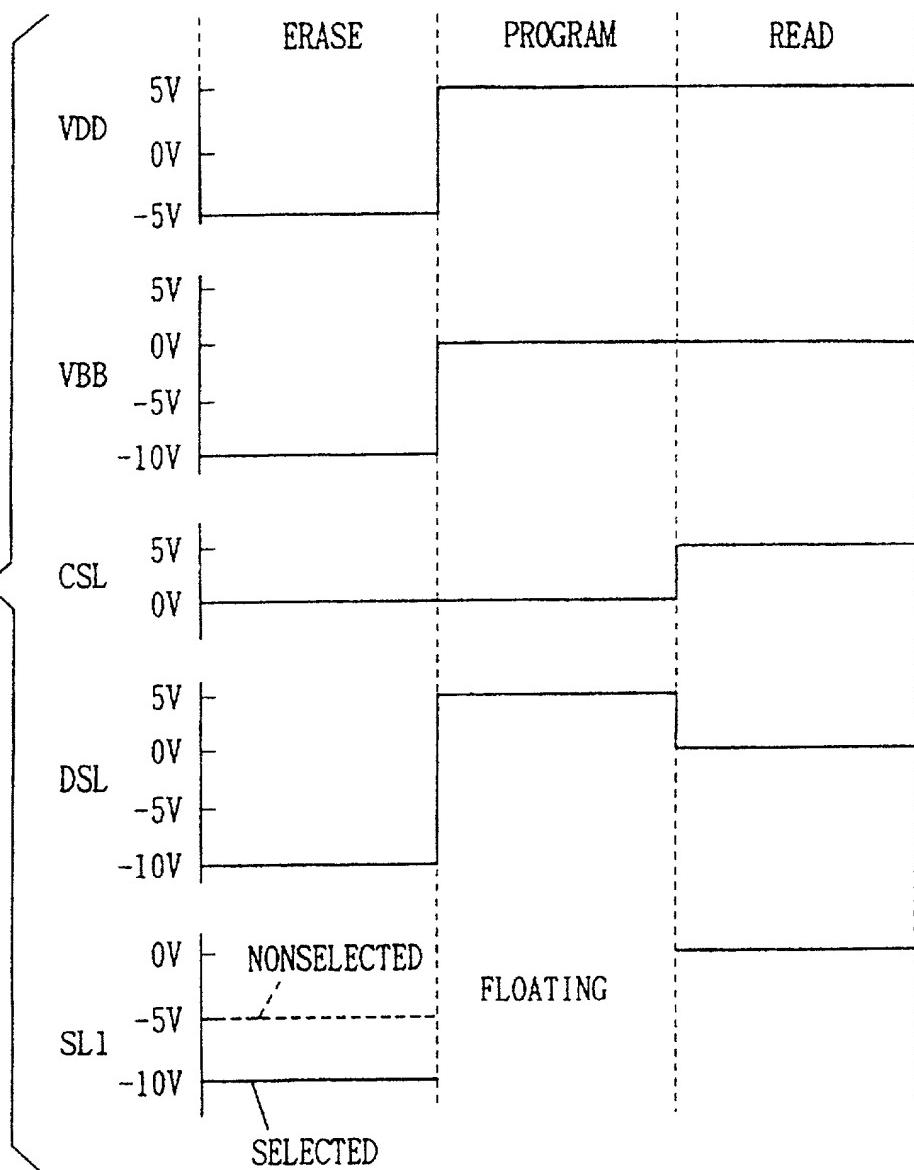


FIG. 51



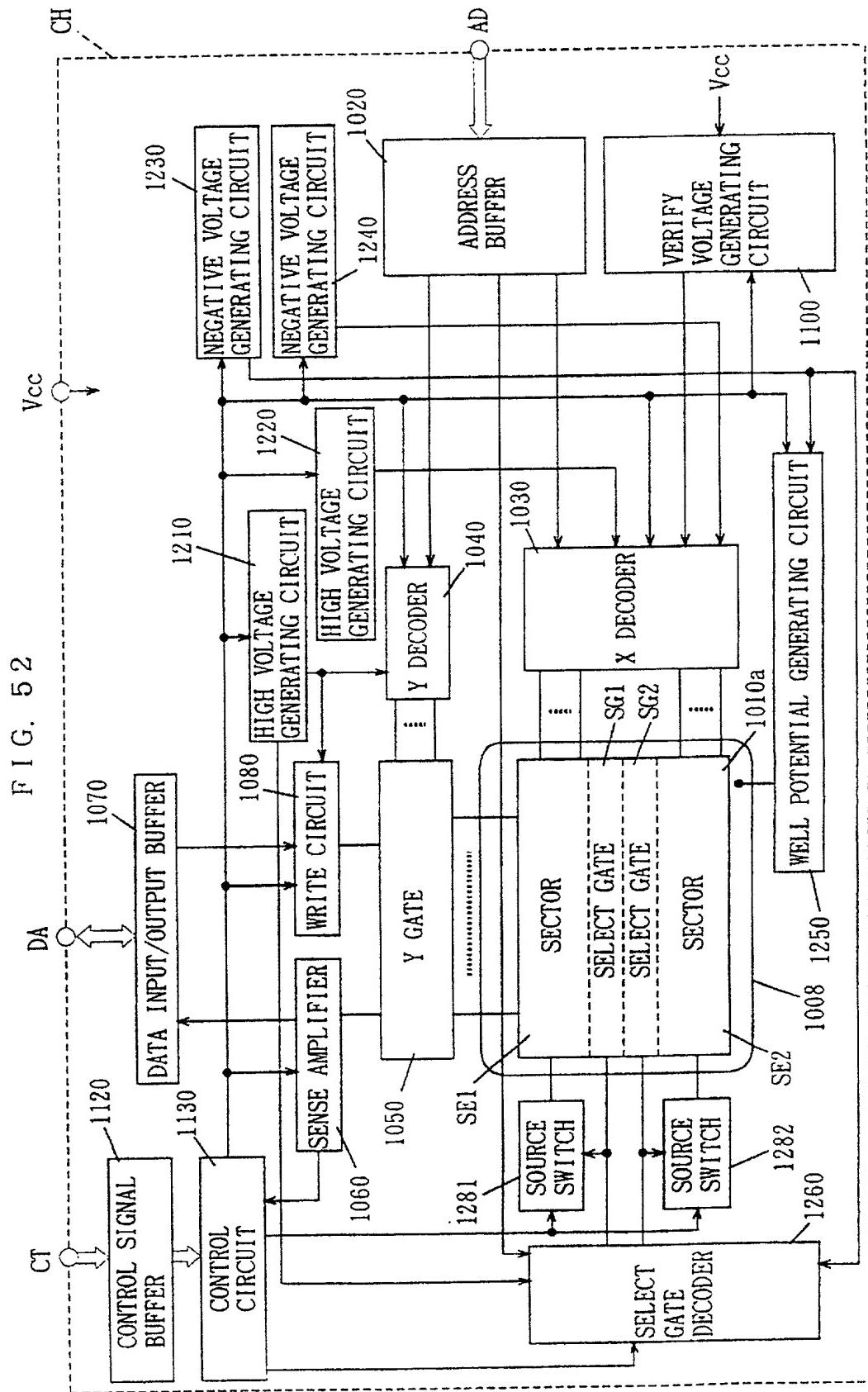


FIG. 53

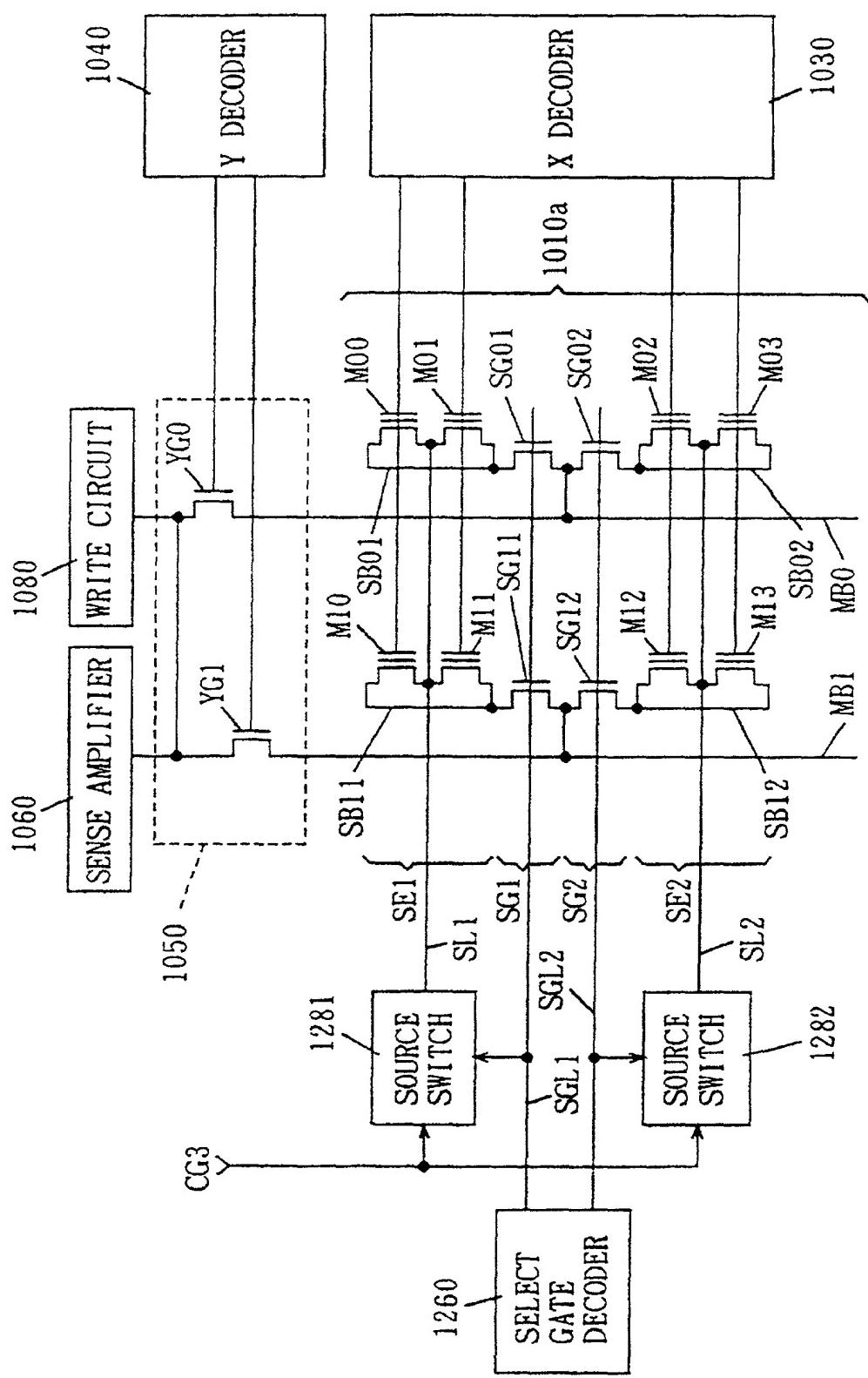


FIG. 54

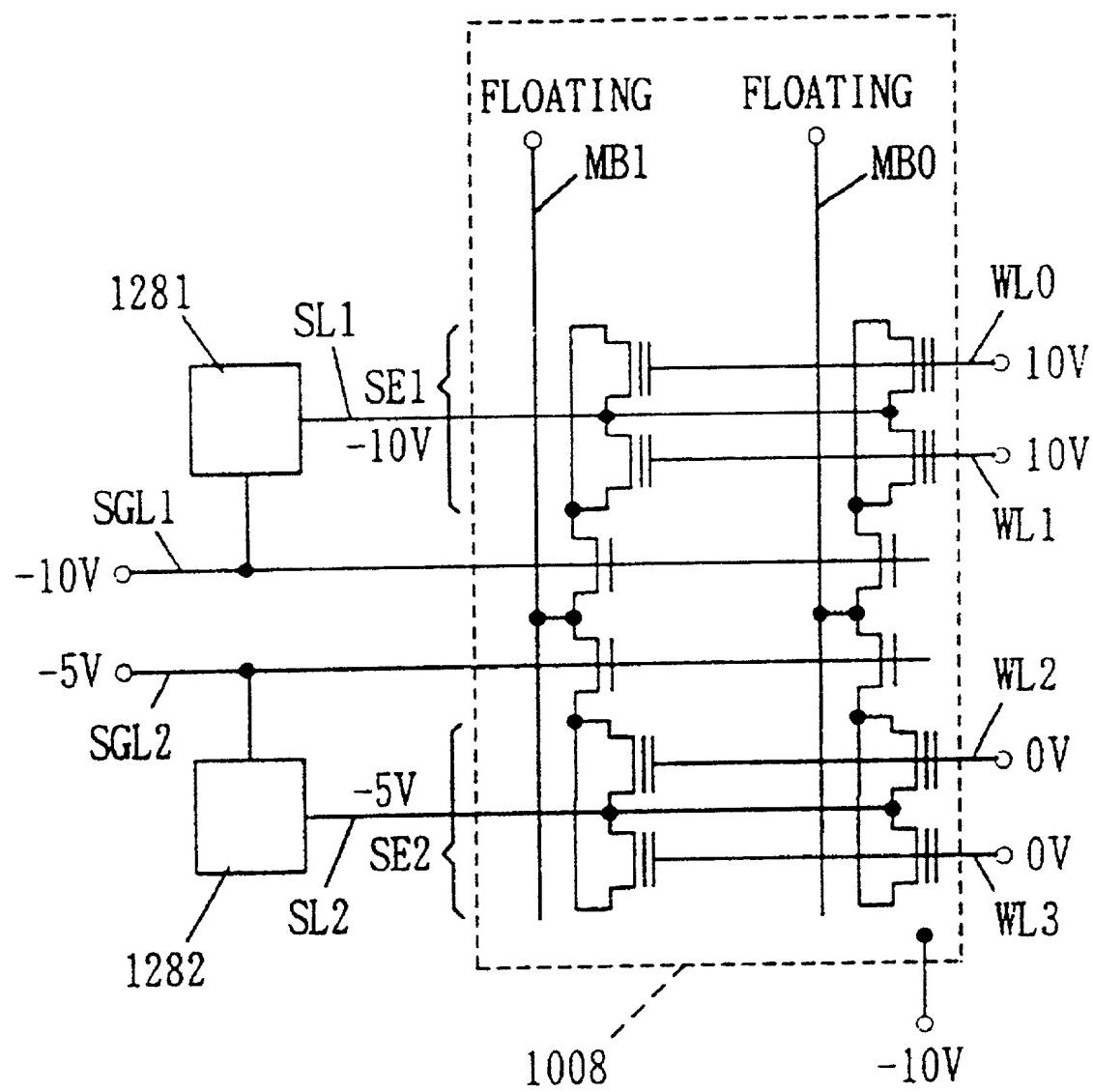


FIG. 55

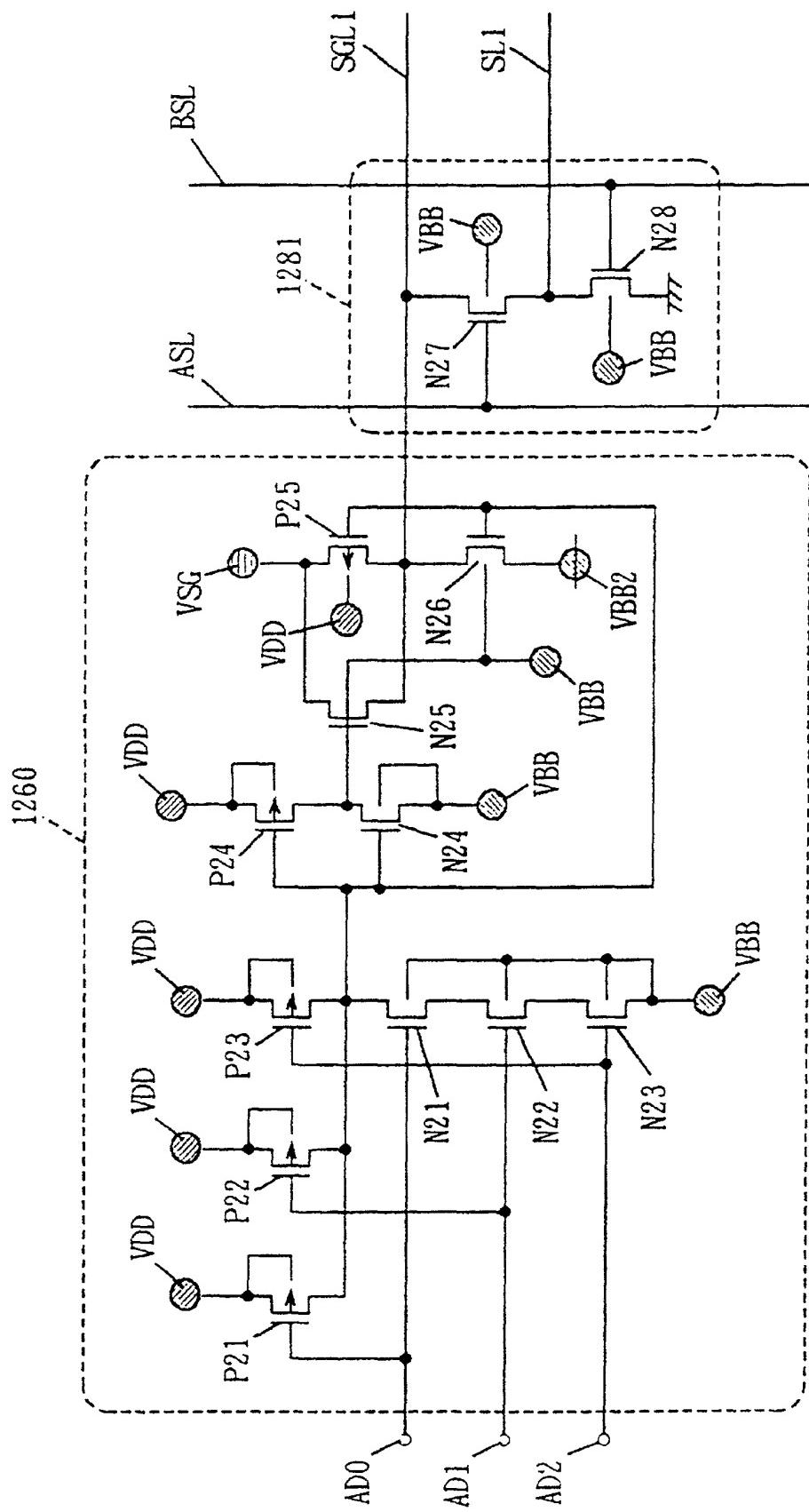


FIG. 56

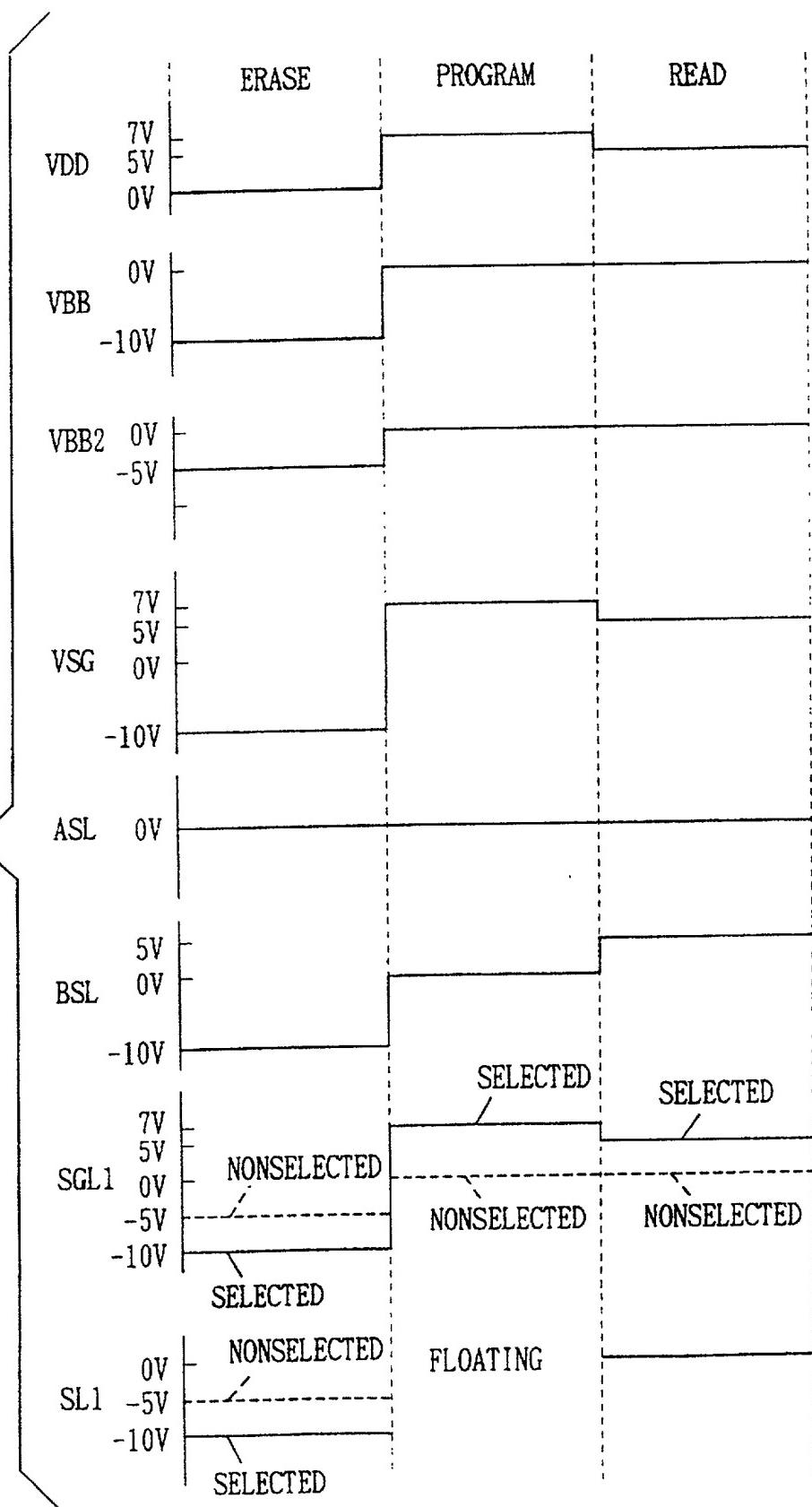


FIG. 57

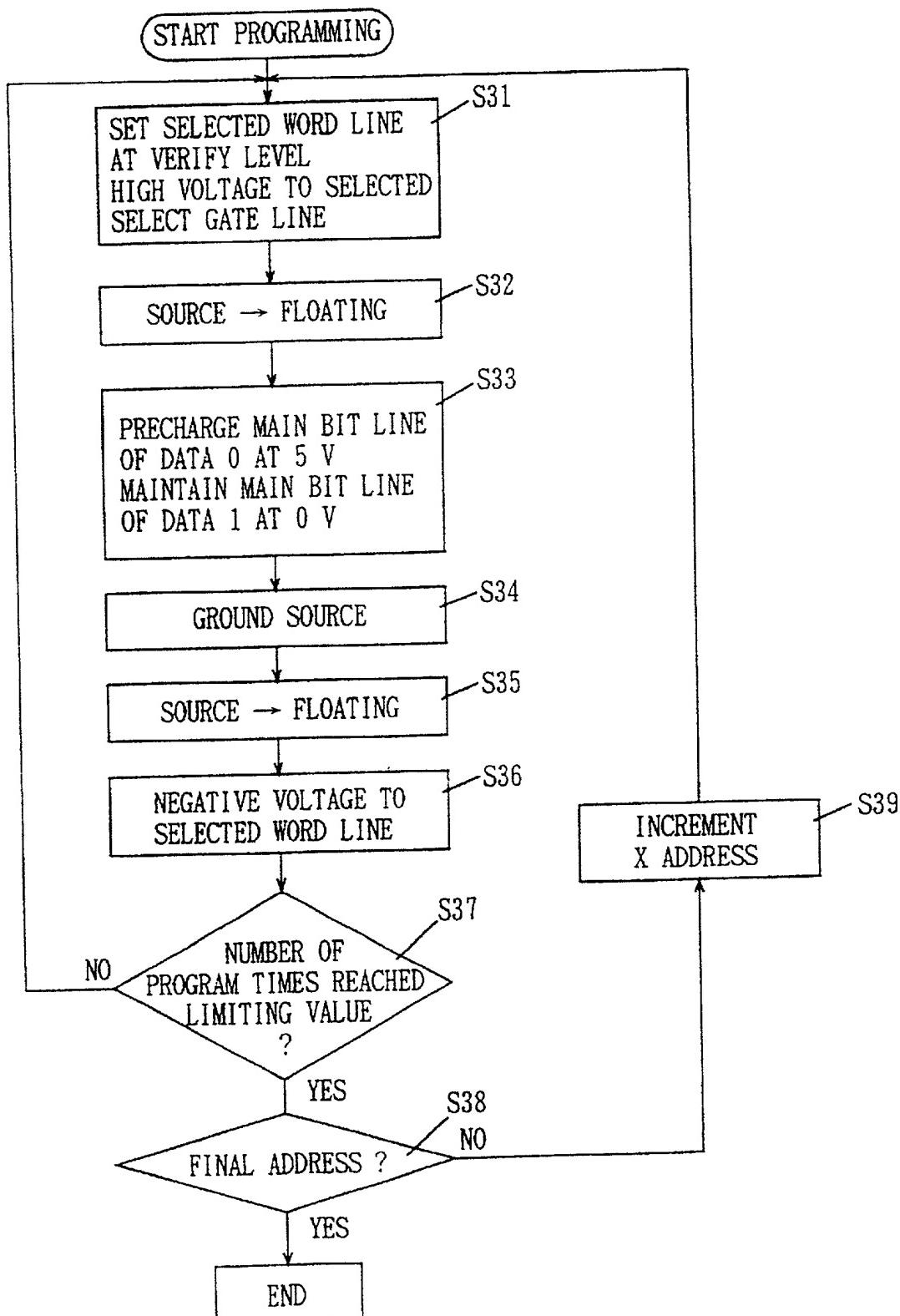


FIG. 58

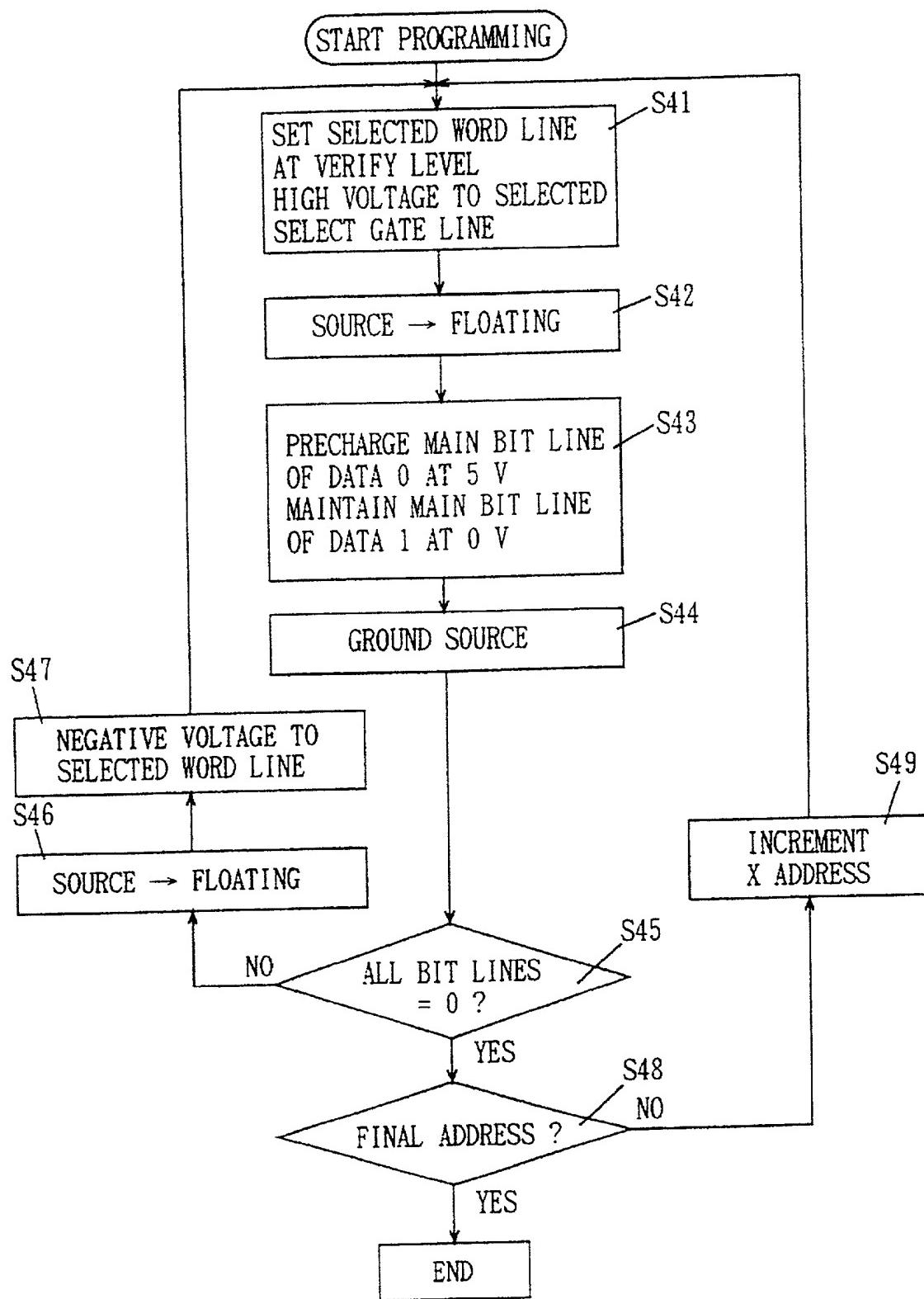


FIG.59

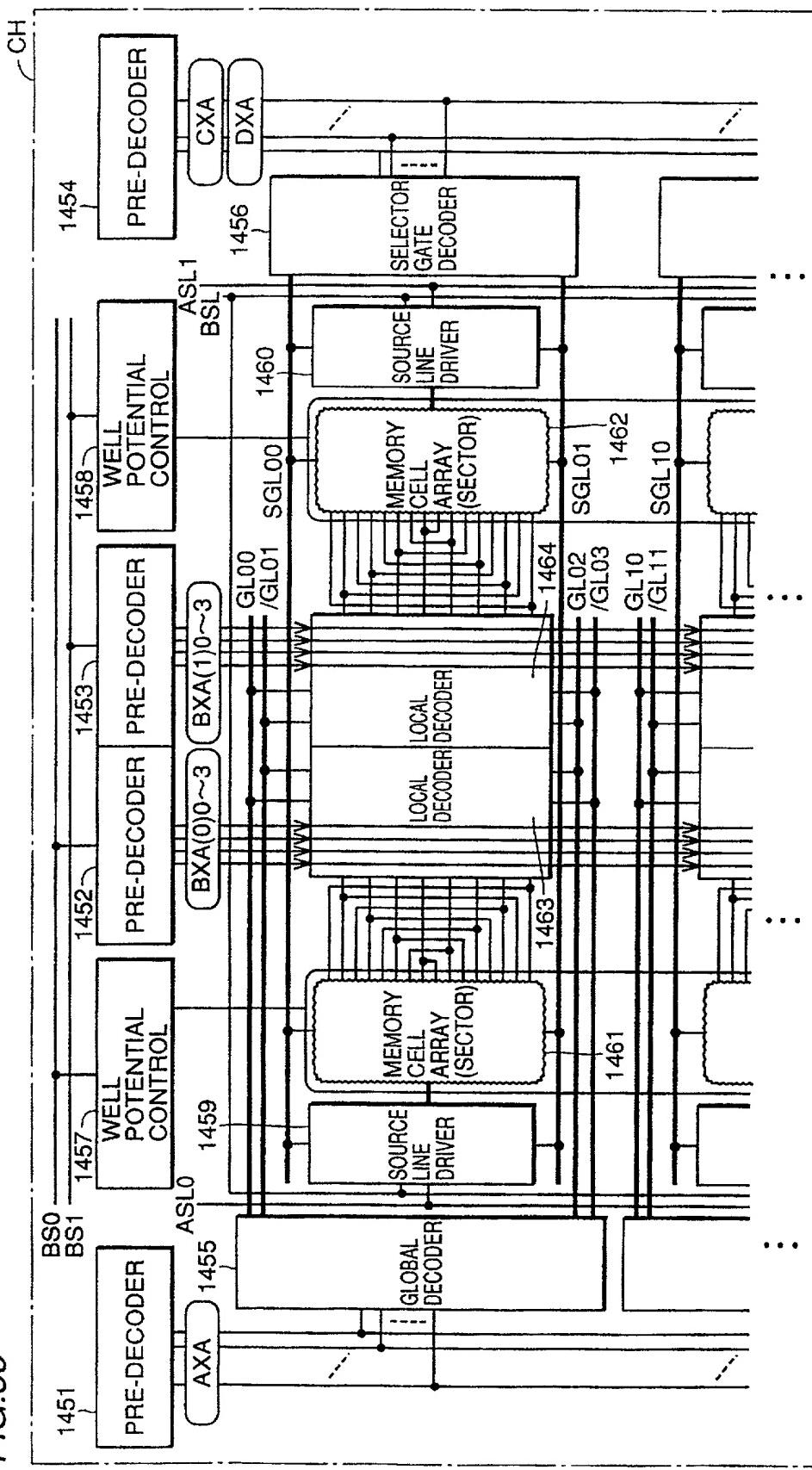


FIG. 60
WELL
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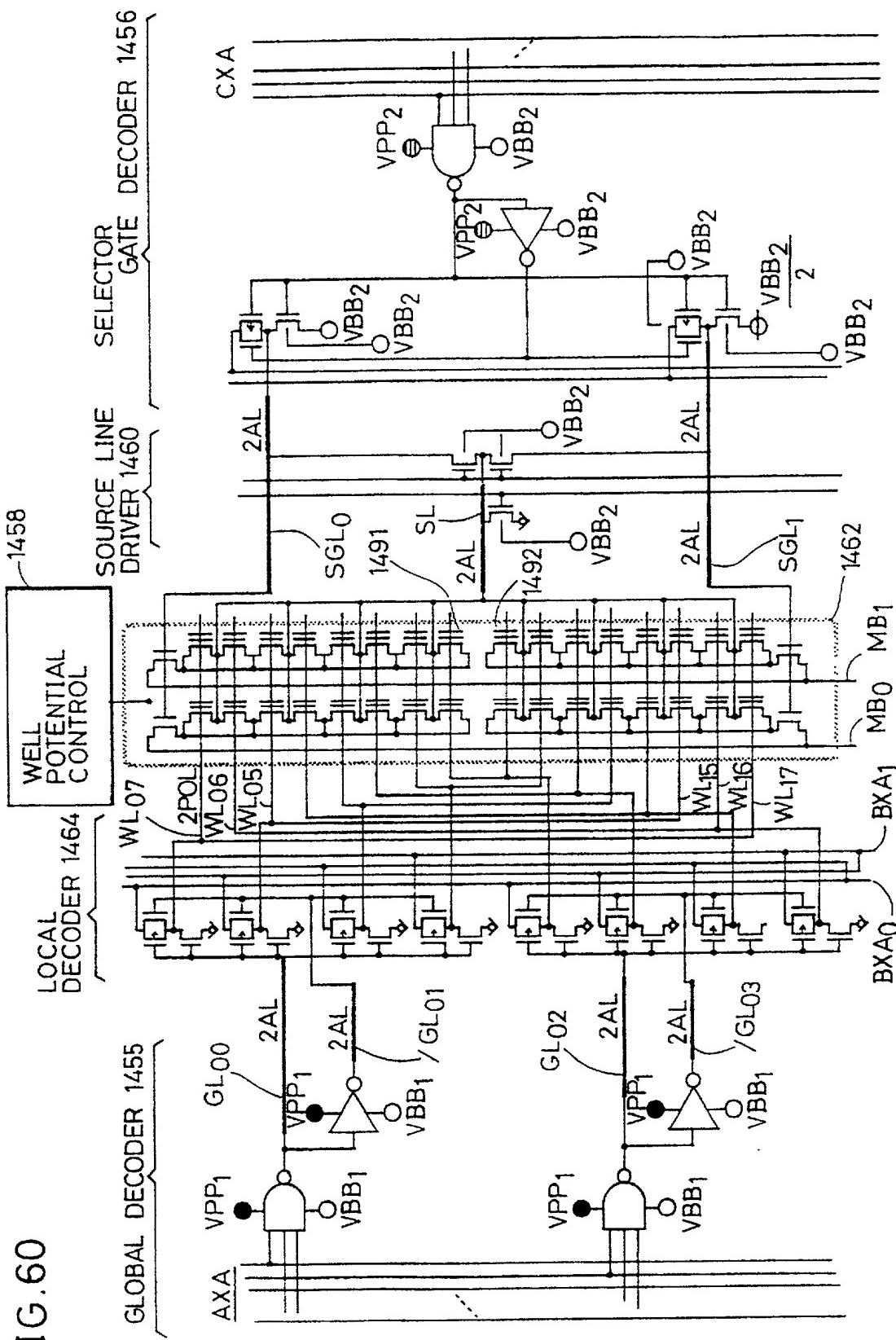


FIG. 61

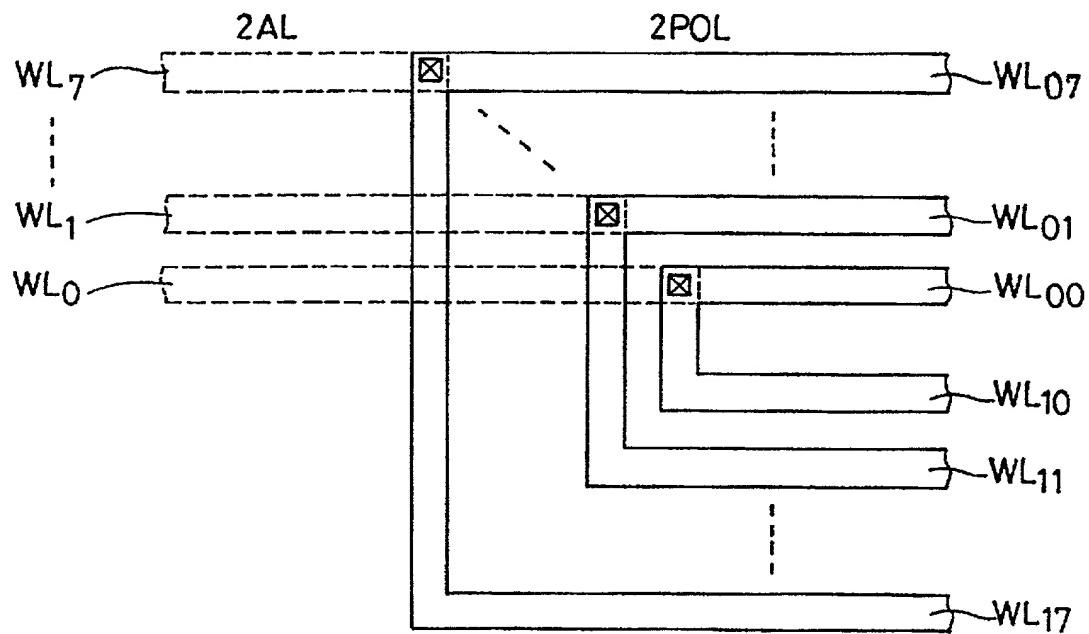
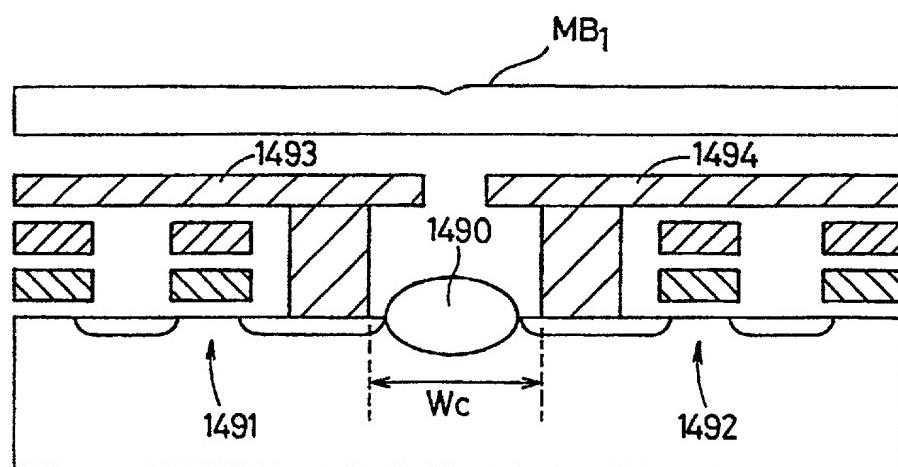


FIG. 62



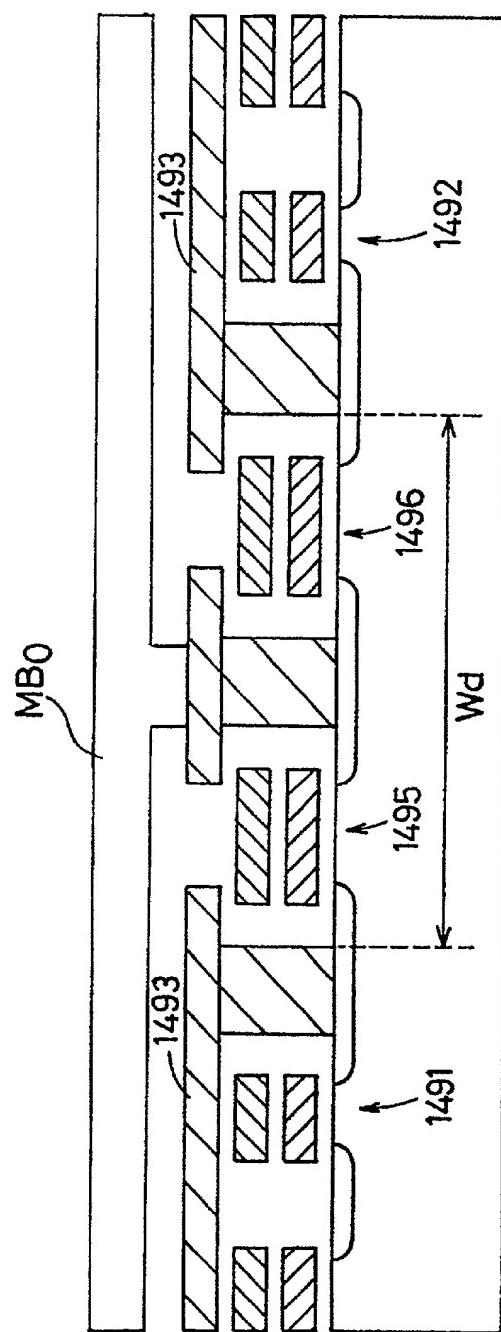


FIG. 63

FIG. 64

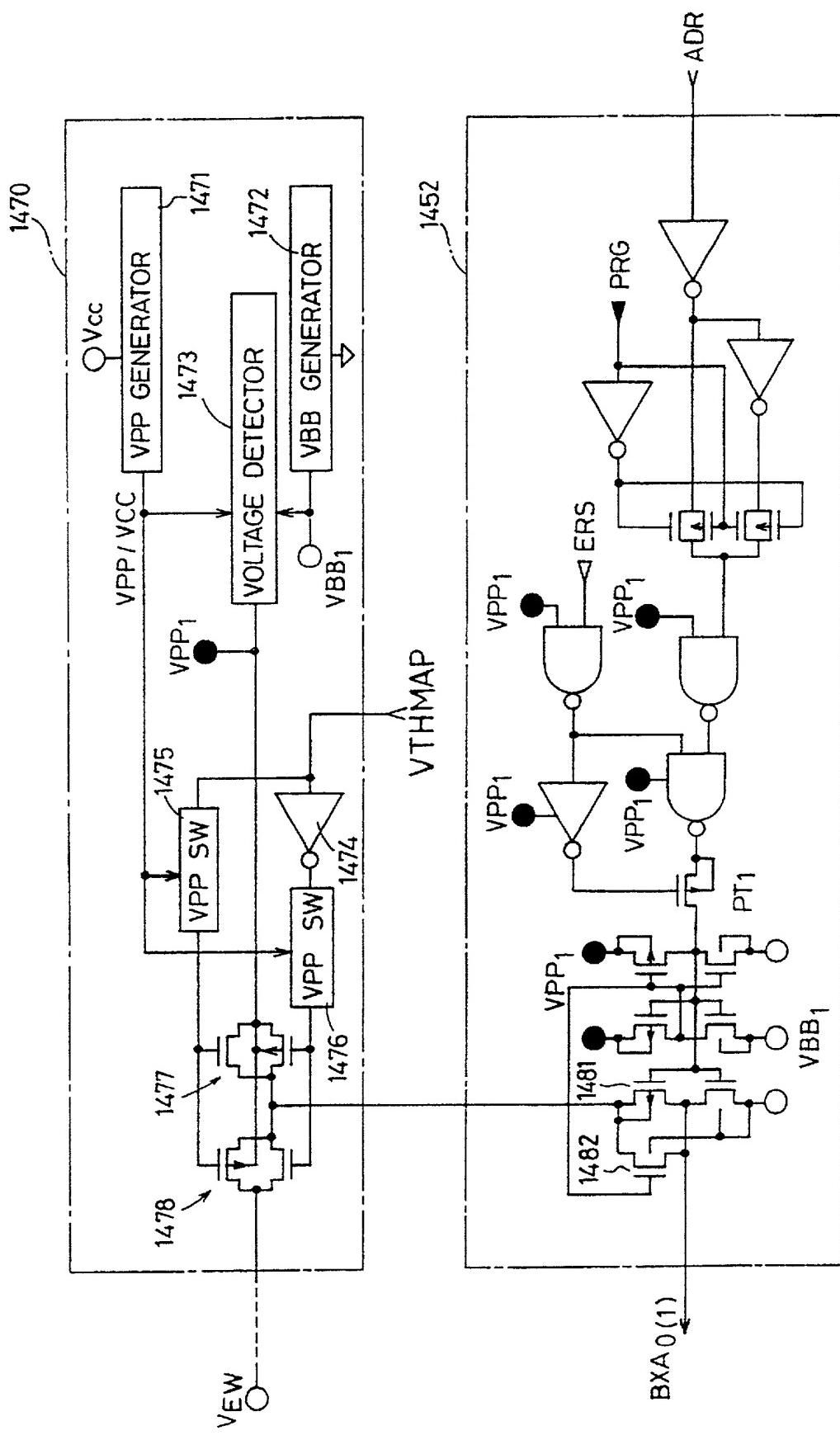
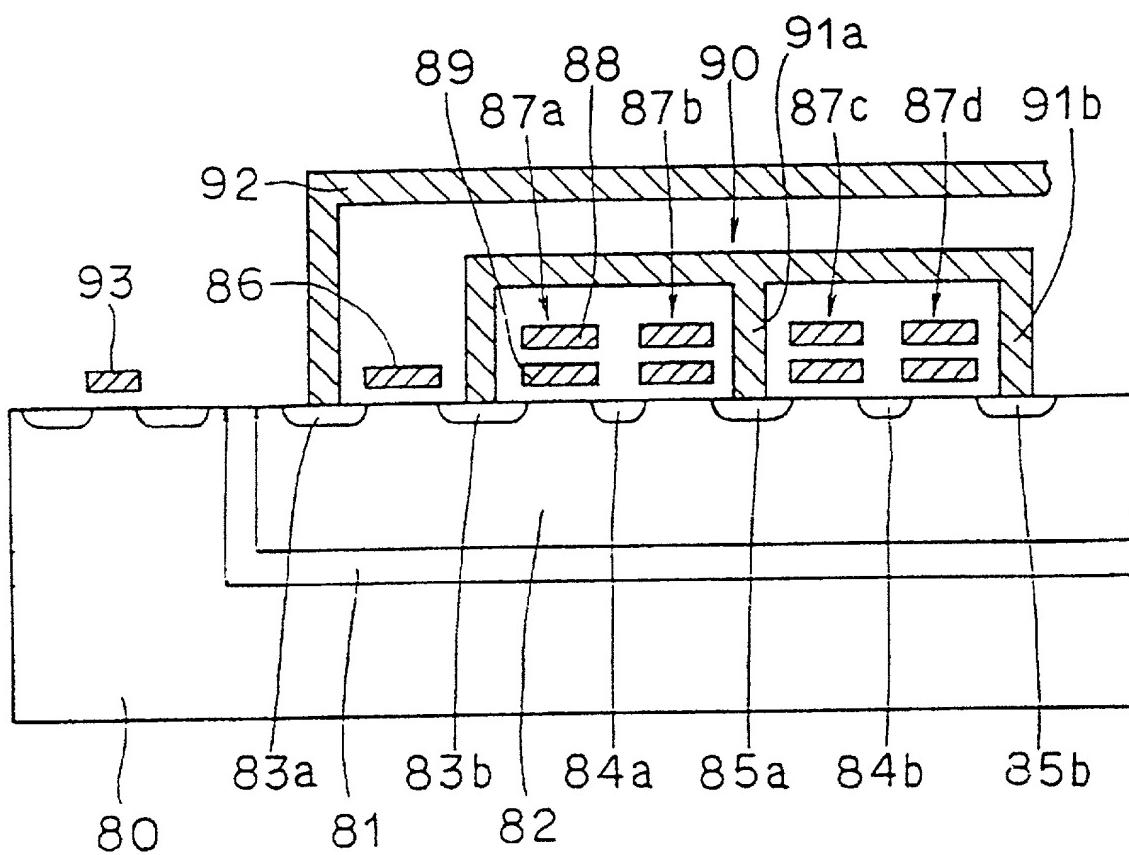


FIG. 65



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FIG. 66A

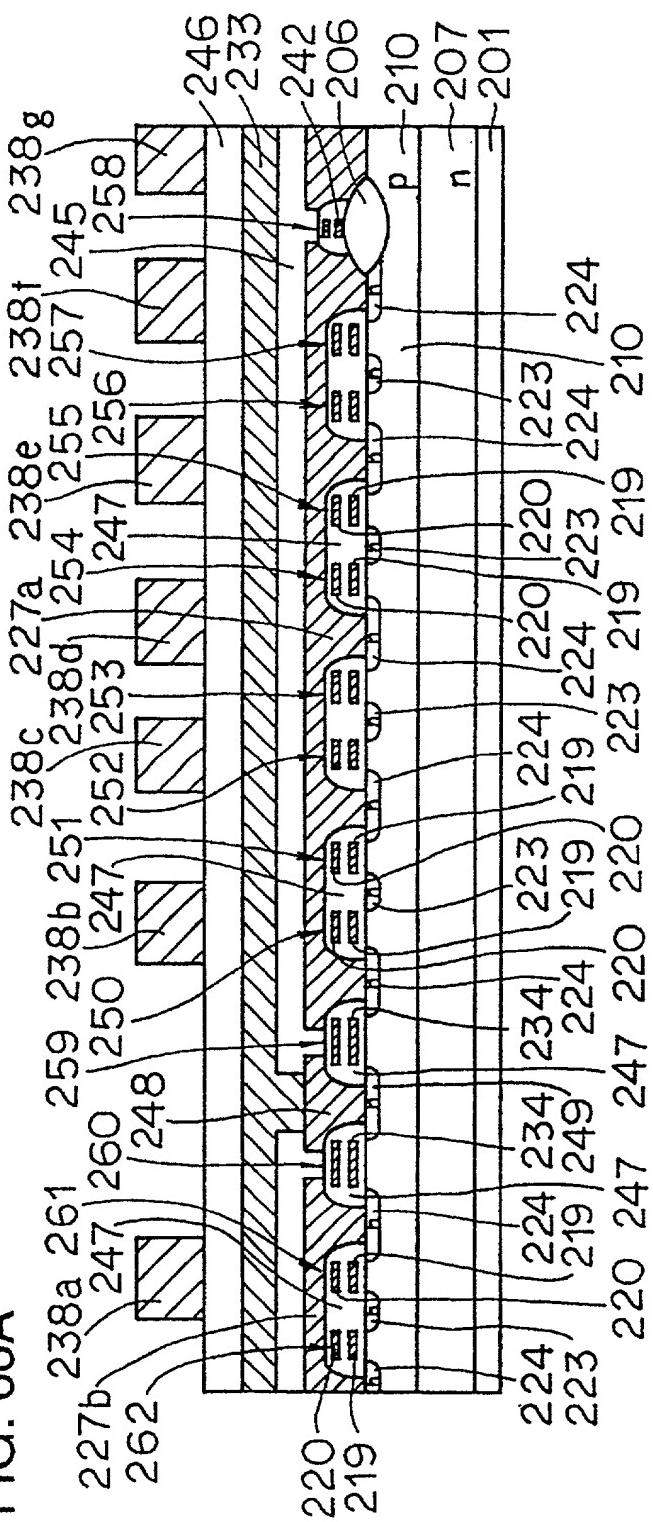


FIG. 66B 227a

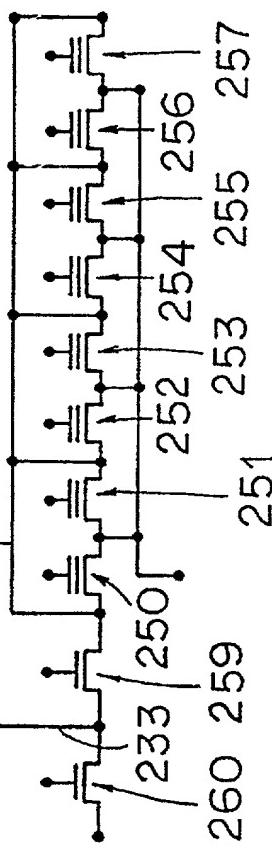


FIG. 67

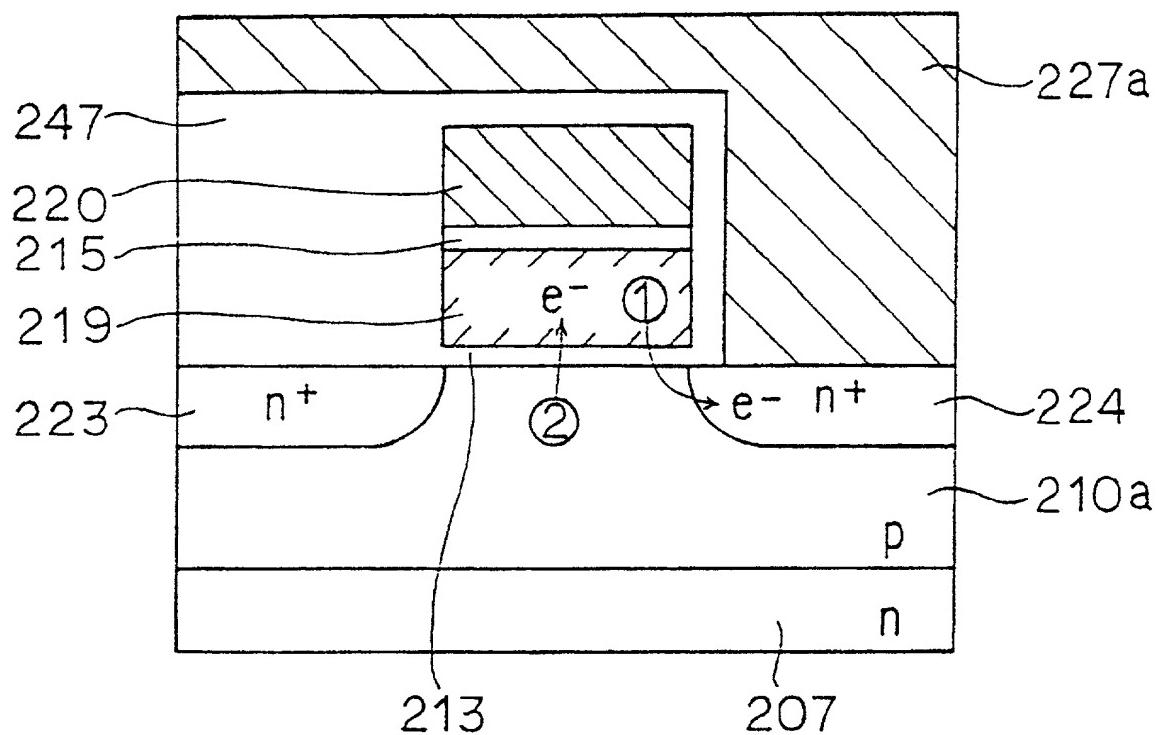


FIG. 68

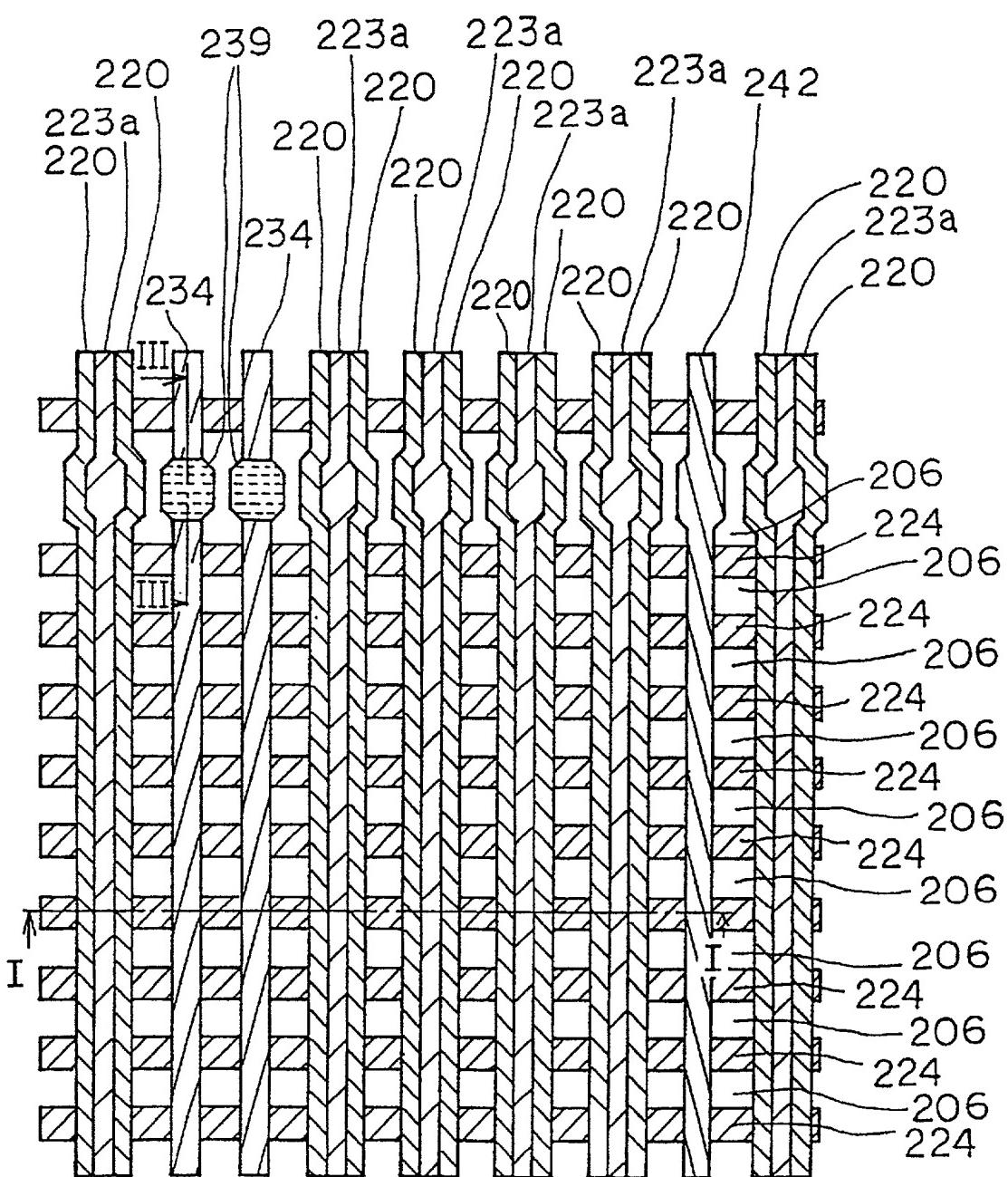


FIG. 69

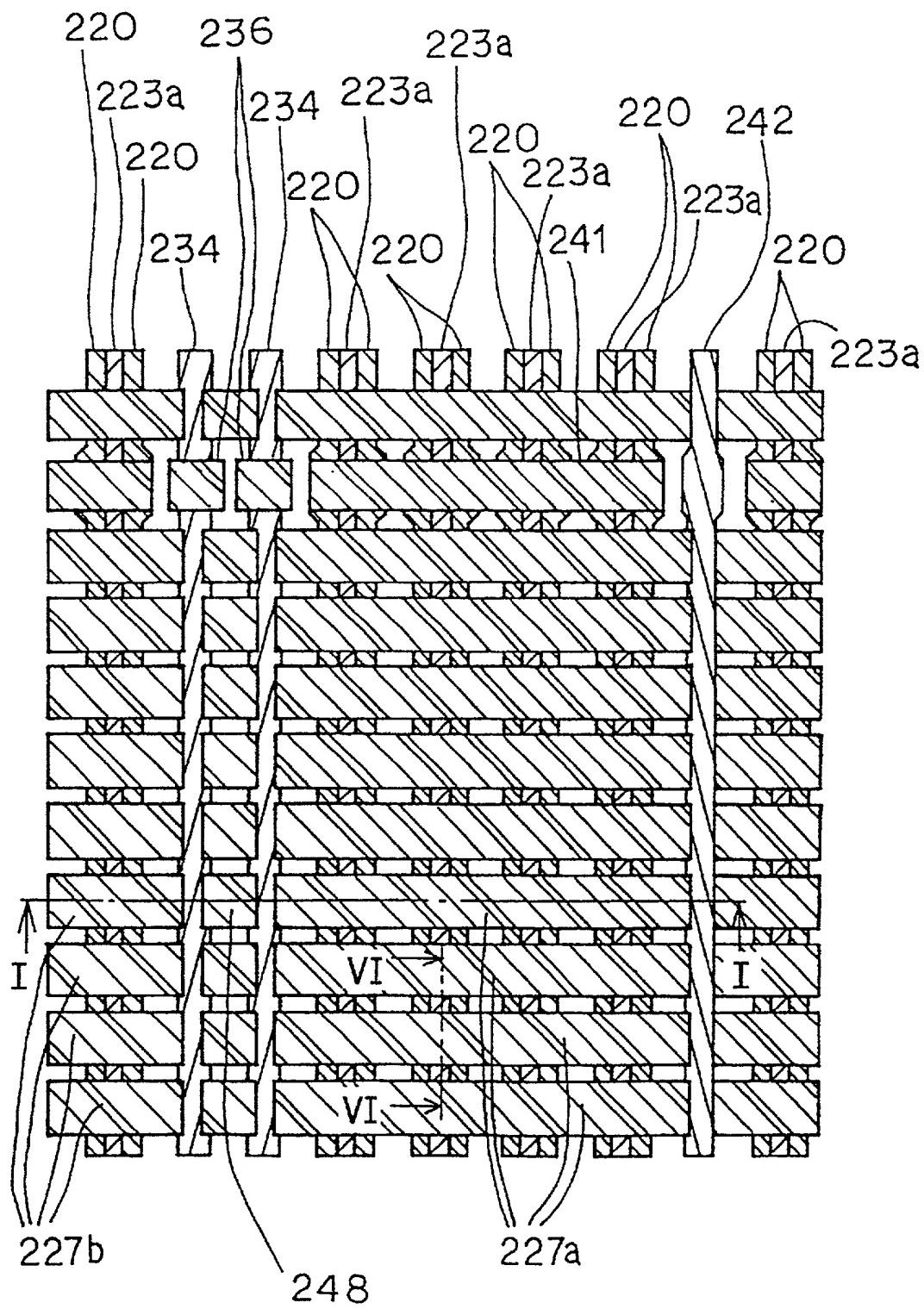


FIG. 70

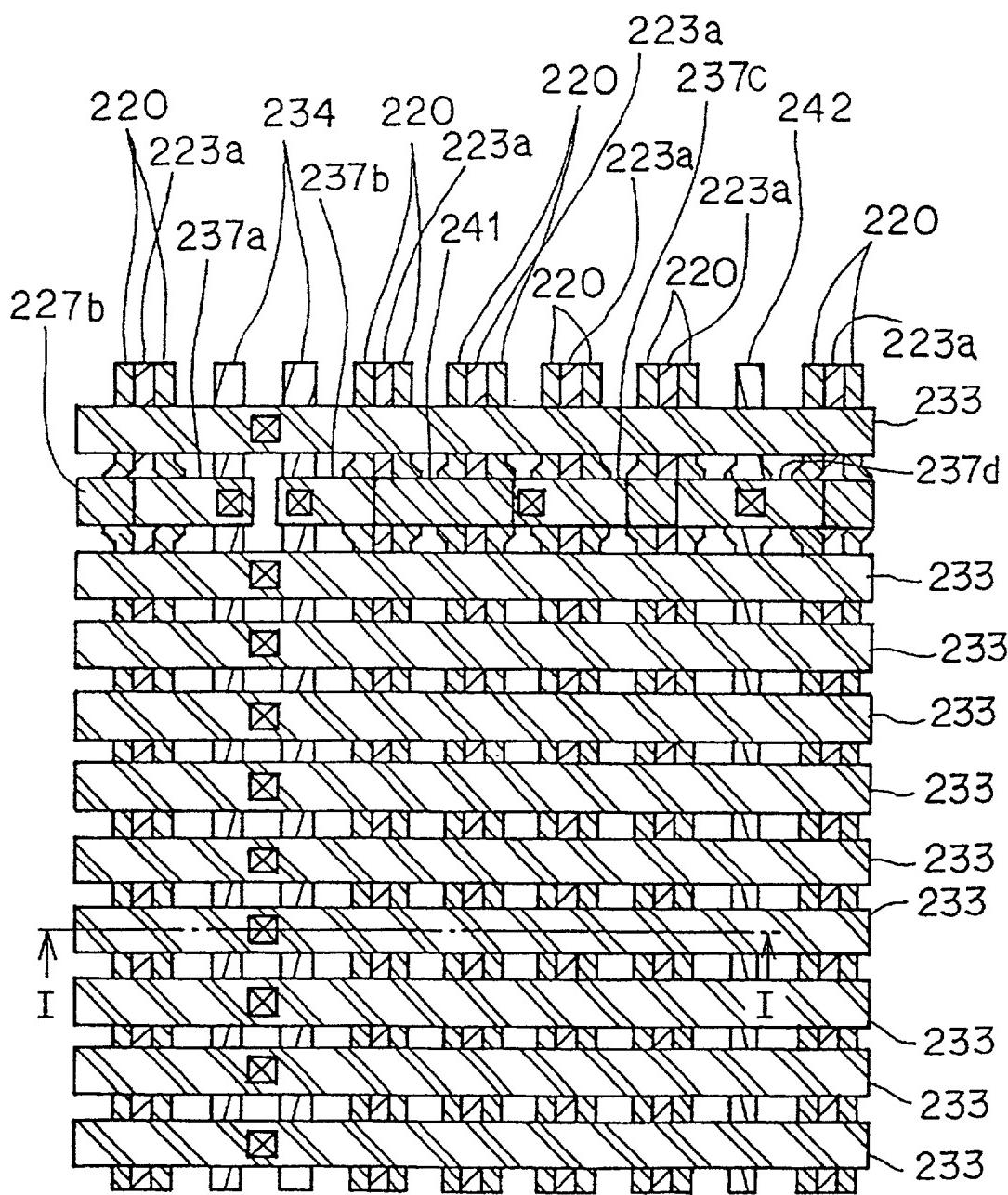
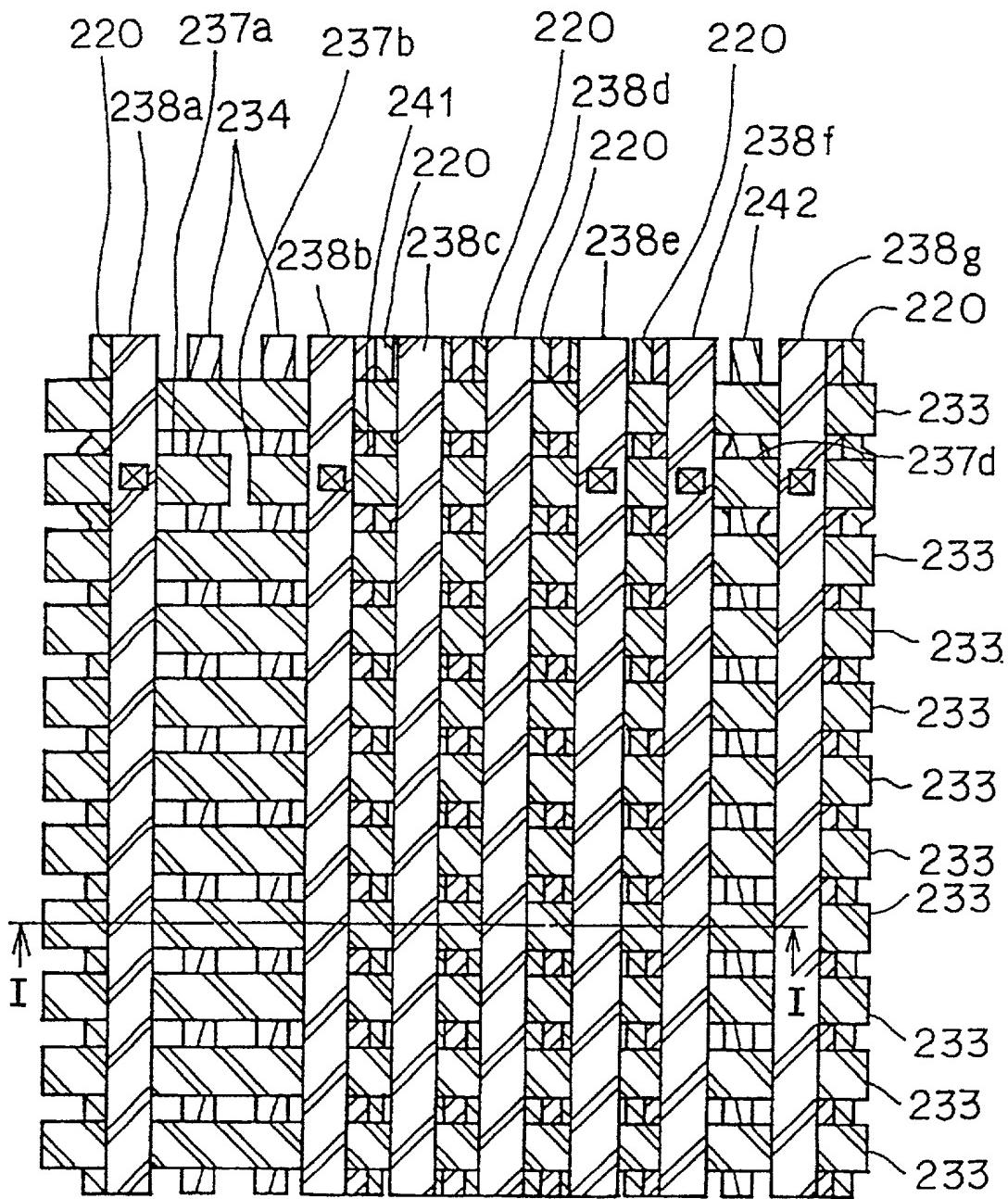
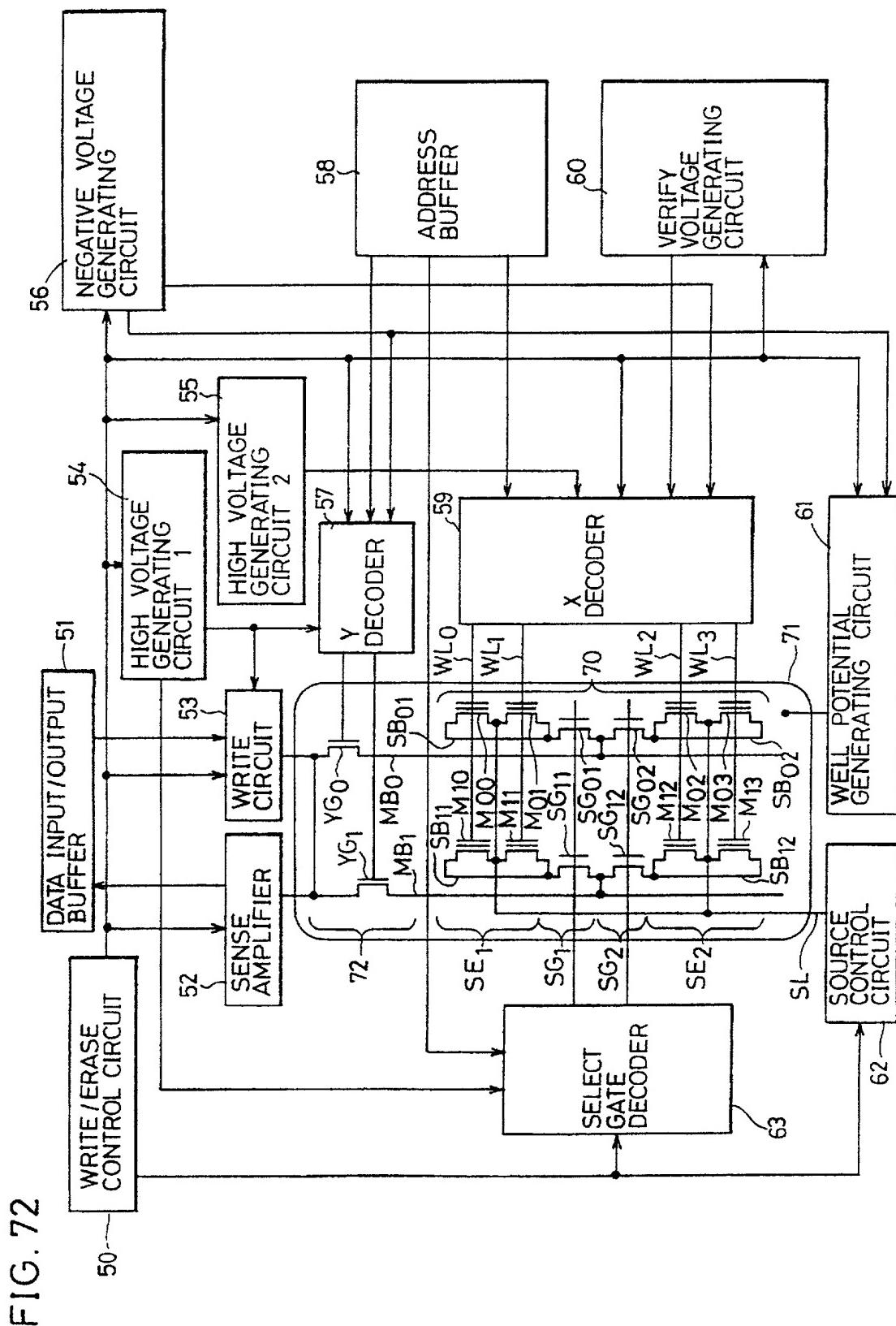


FIG. 71



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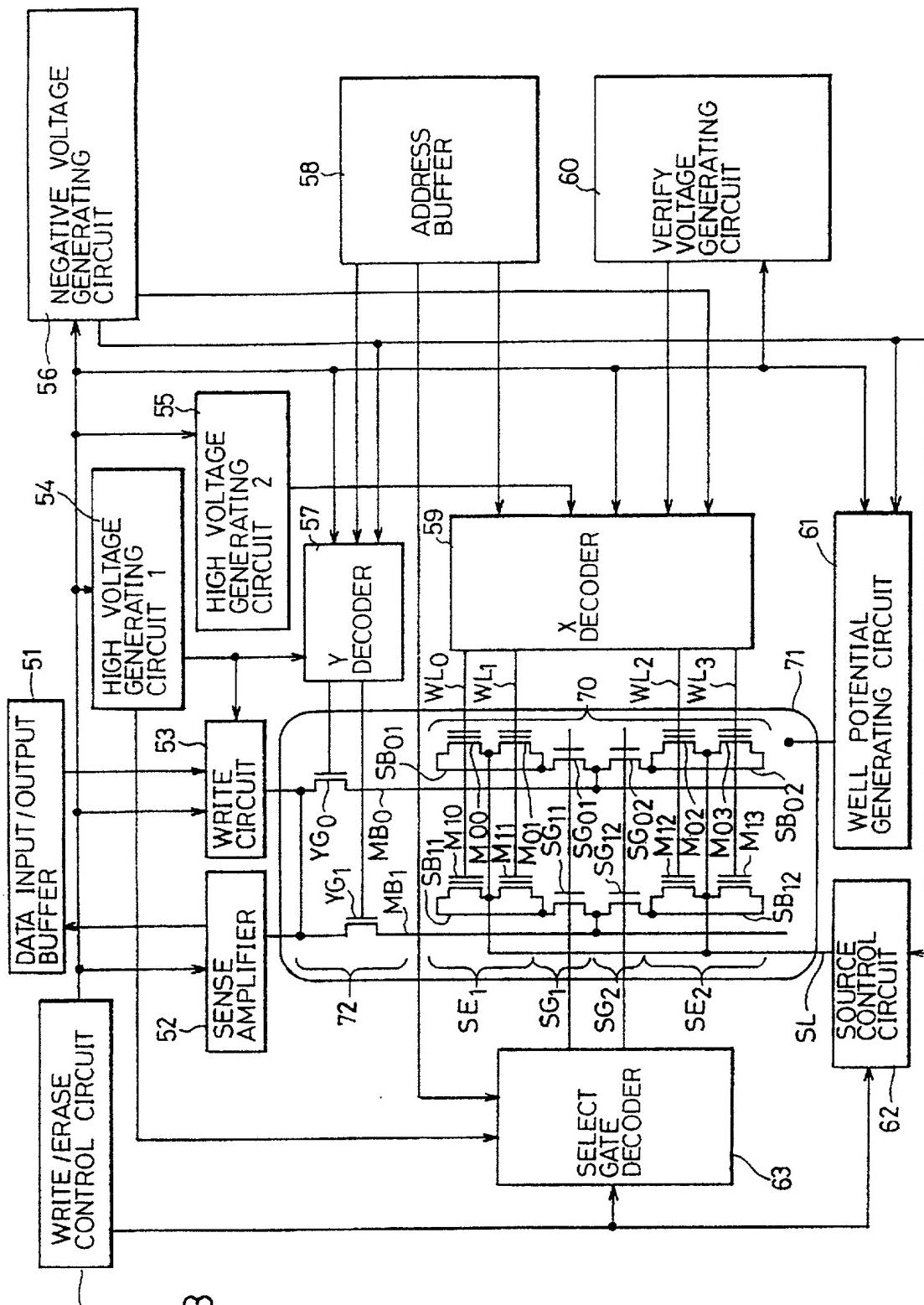


FIG. 73

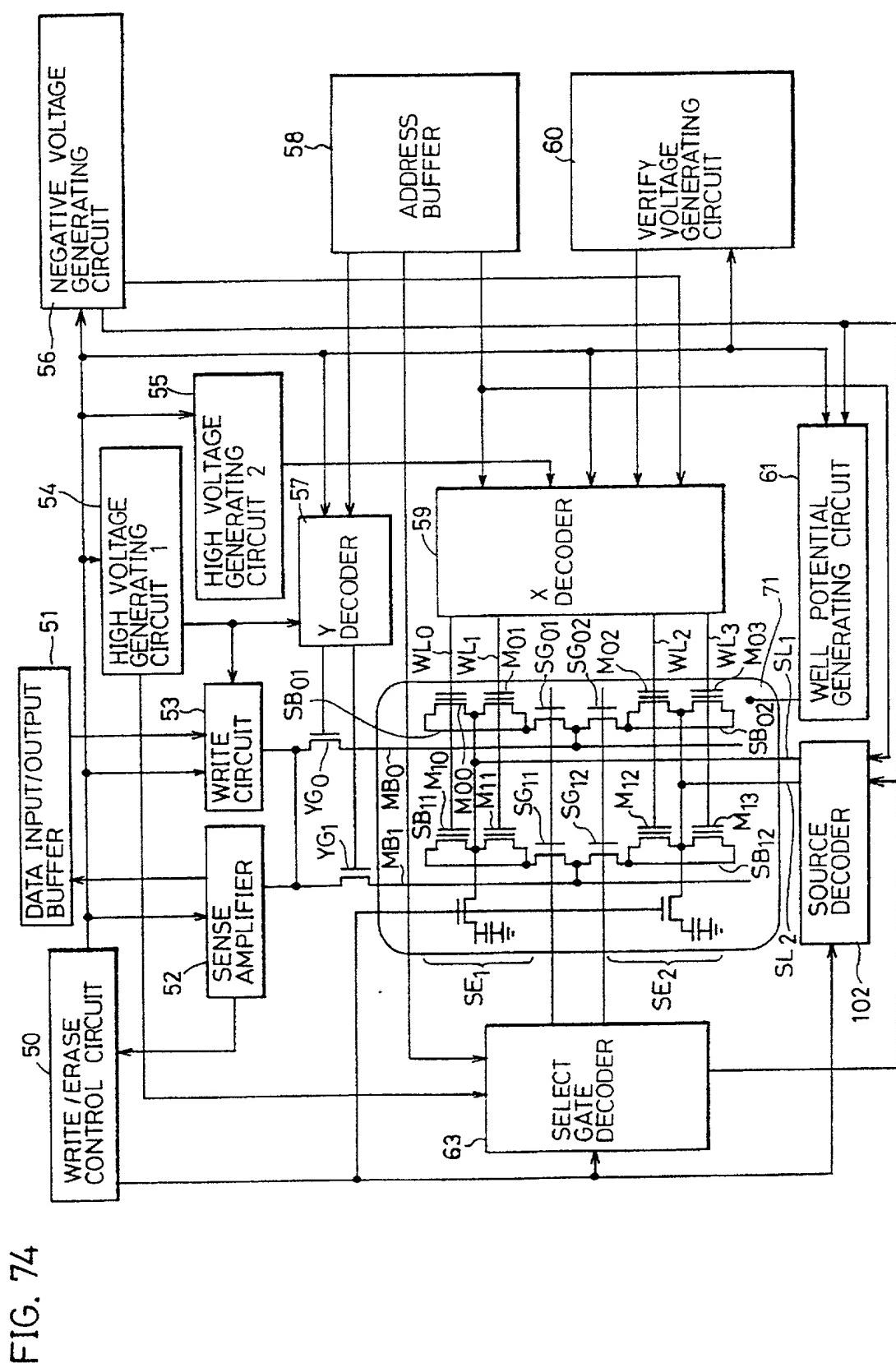
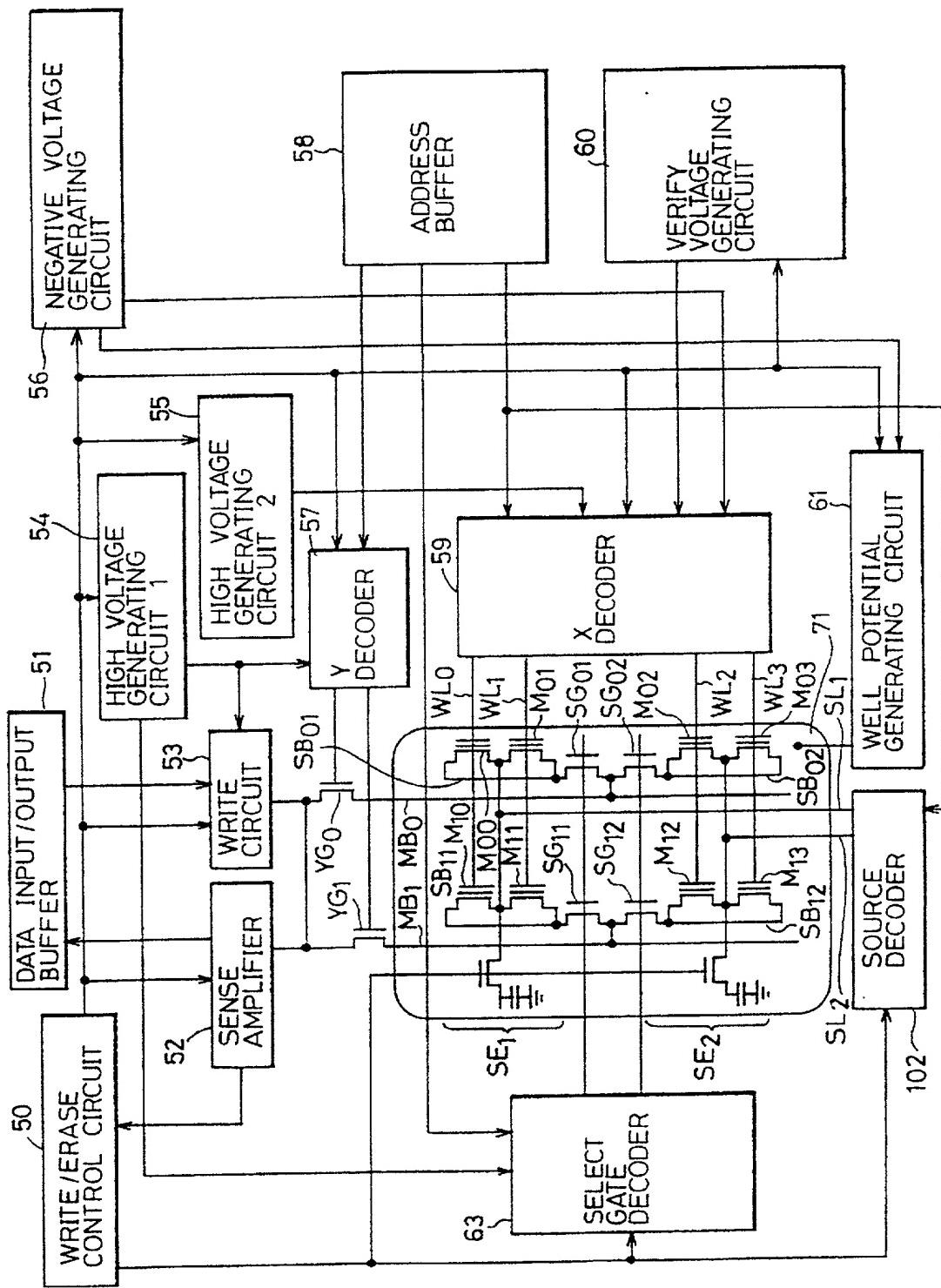


FIG. 75



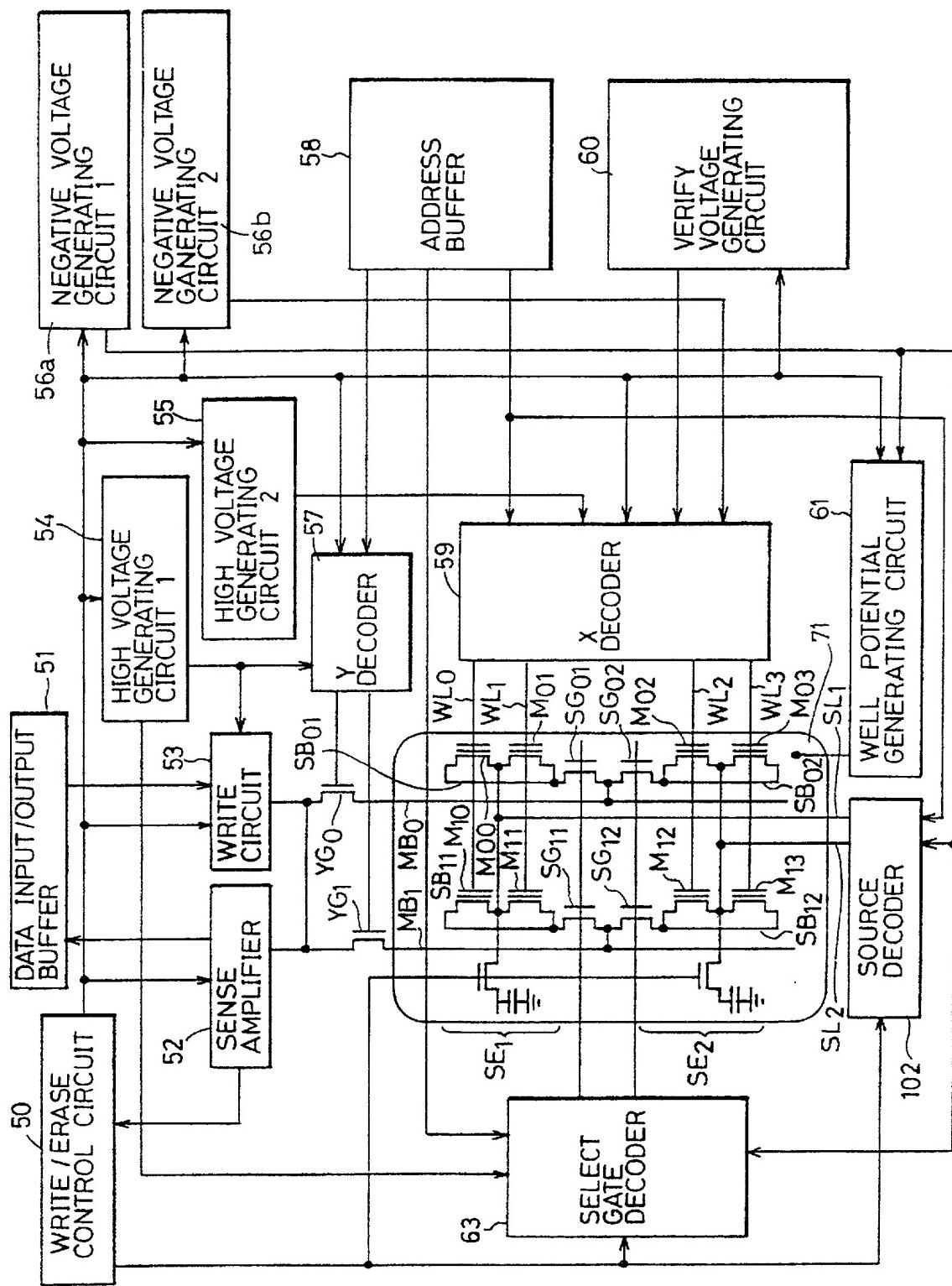


FIG. 76

FIG. 77

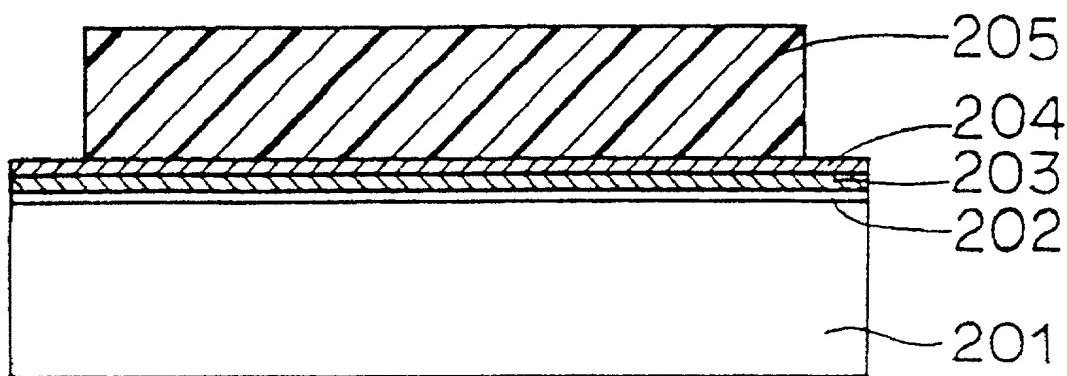


FIG. 78

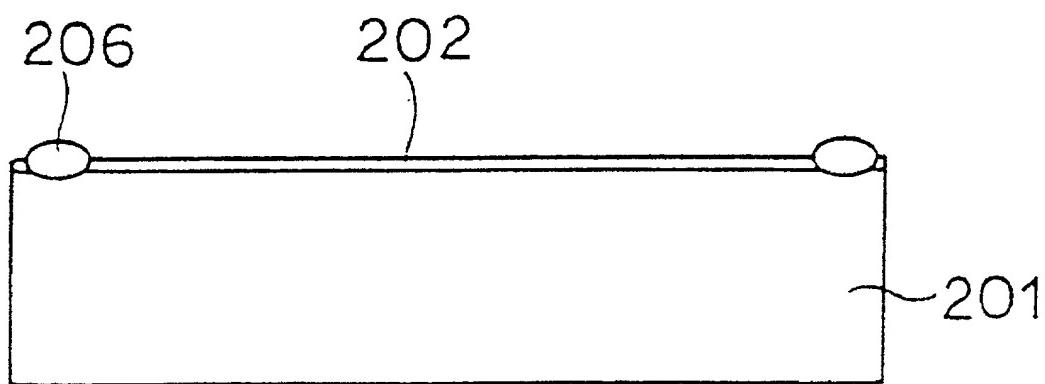


FIG. 79

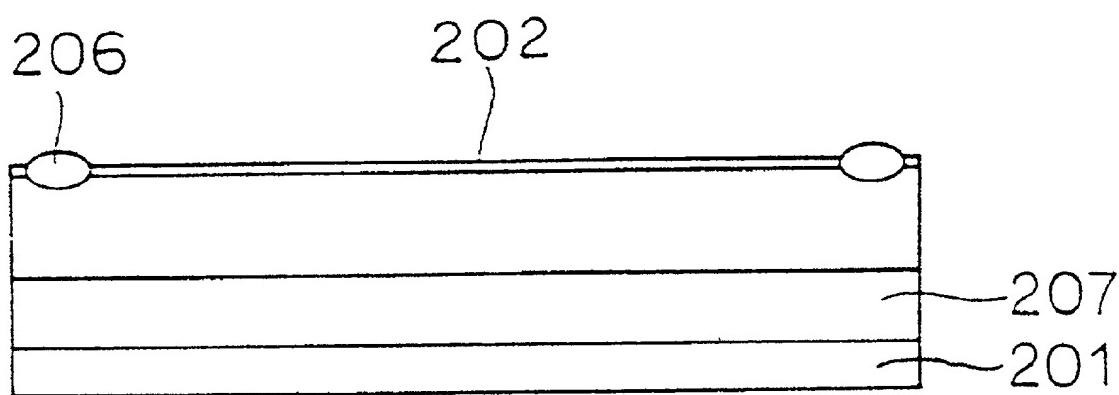


FIG. 80

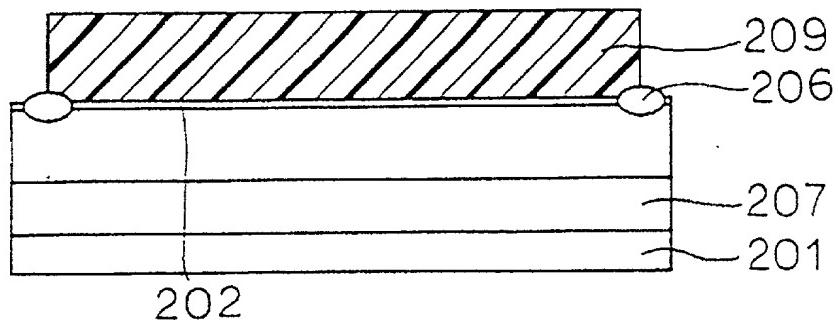


FIG. 81

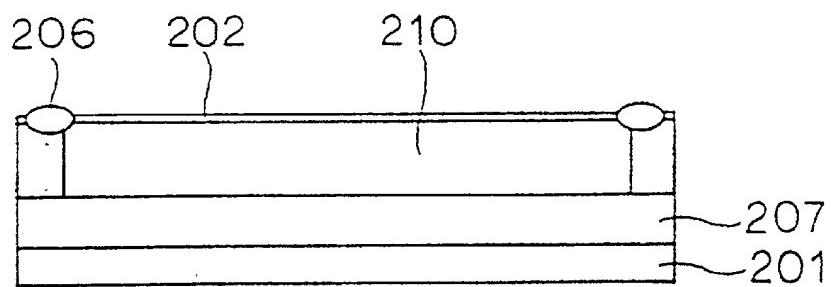


FIG. 82

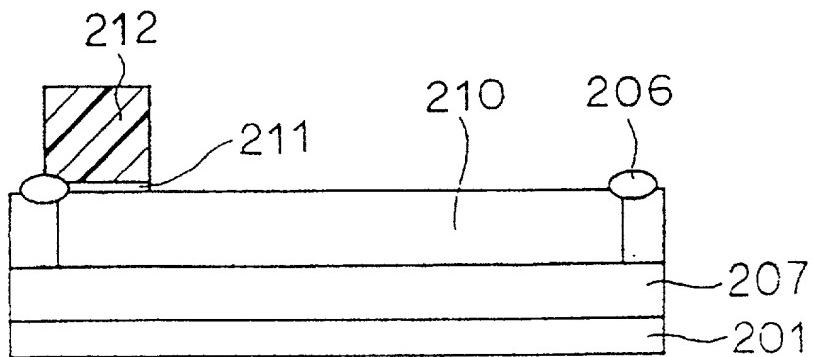


FIG. 83

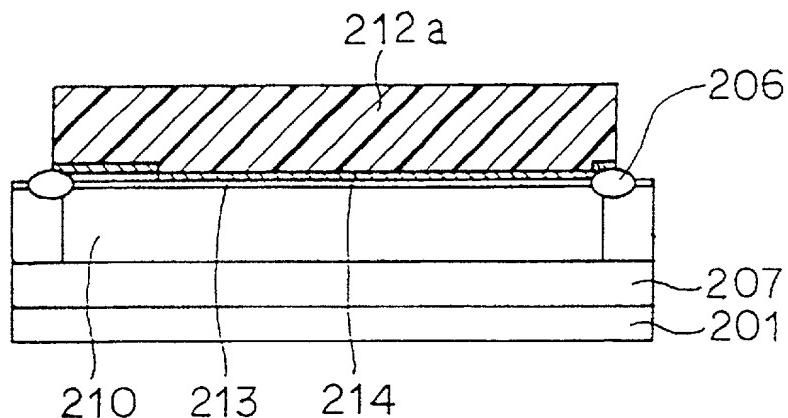


FIG. 84

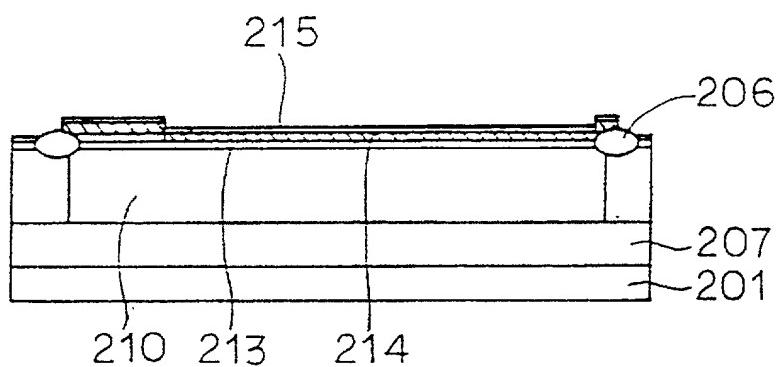


FIG. 85

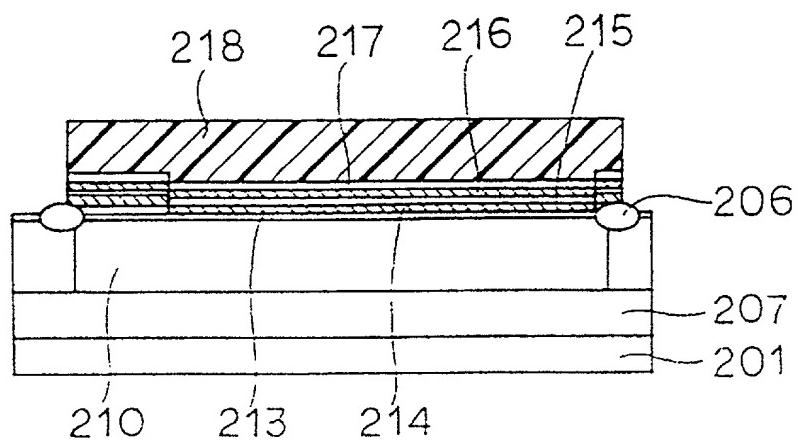


FIG. 86

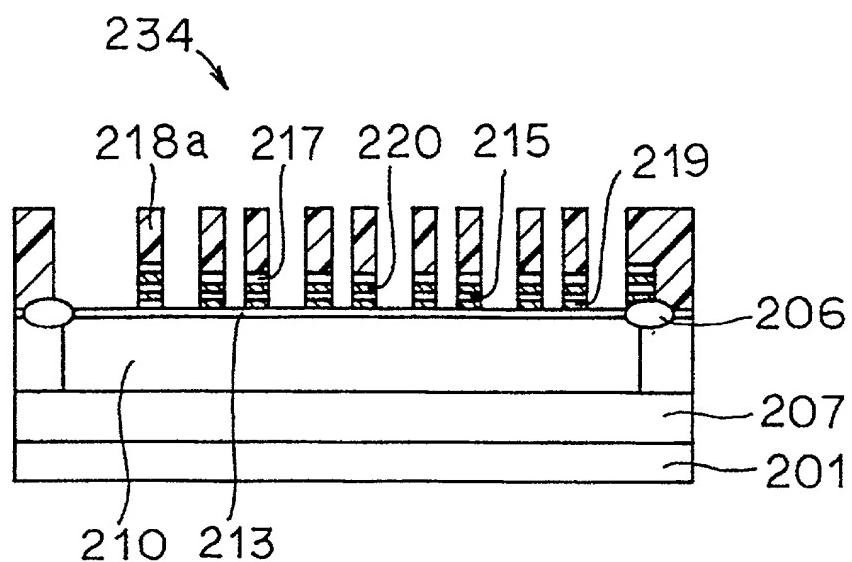


FIG. 87A

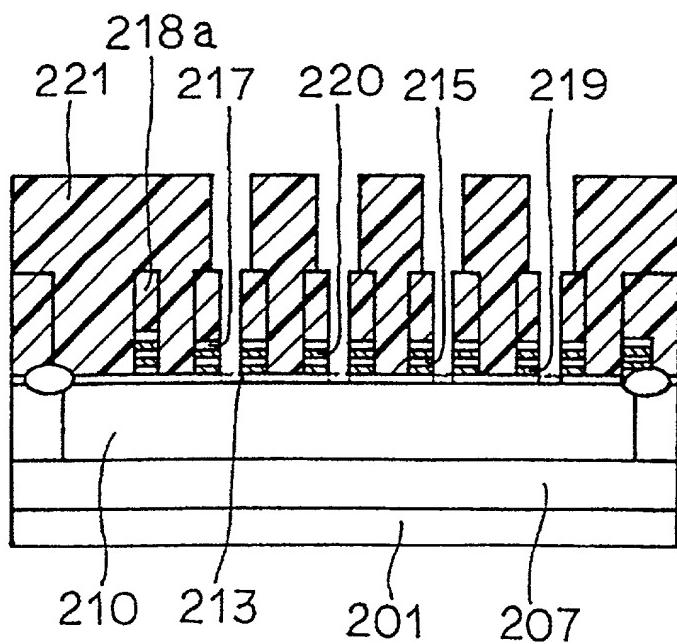


FIG. 87B

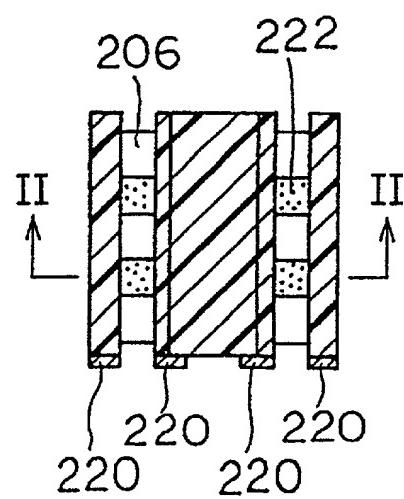


FIG. 88

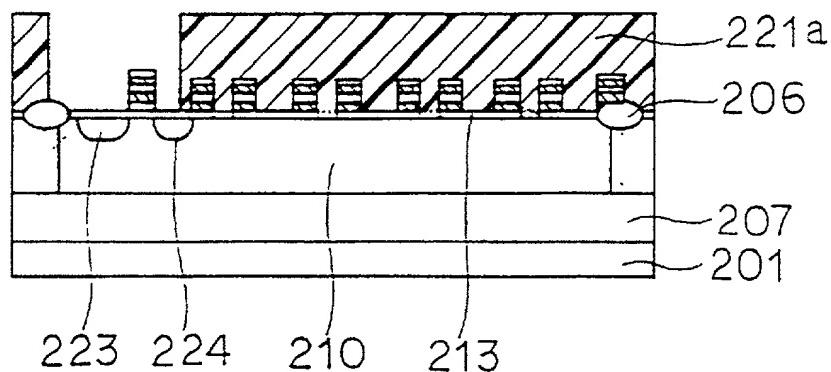


FIG. 89

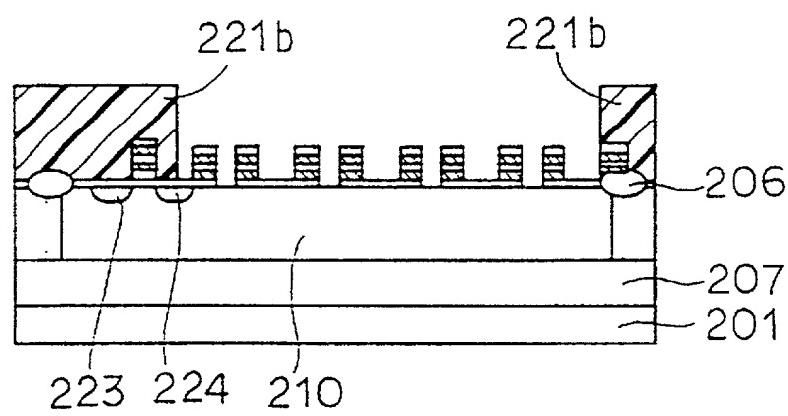


FIG. 90

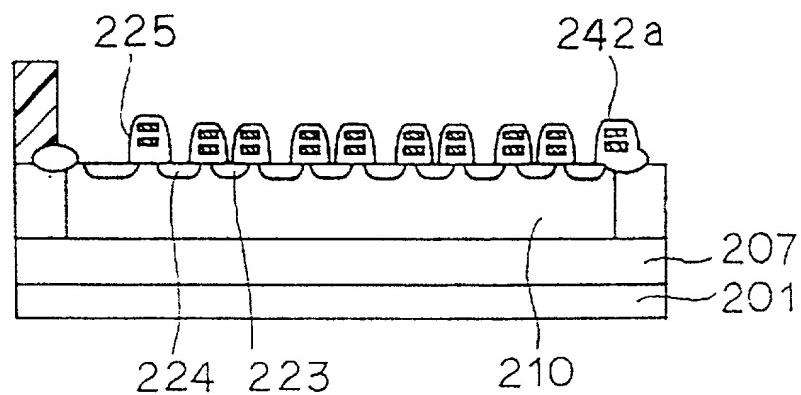


FIG. 91

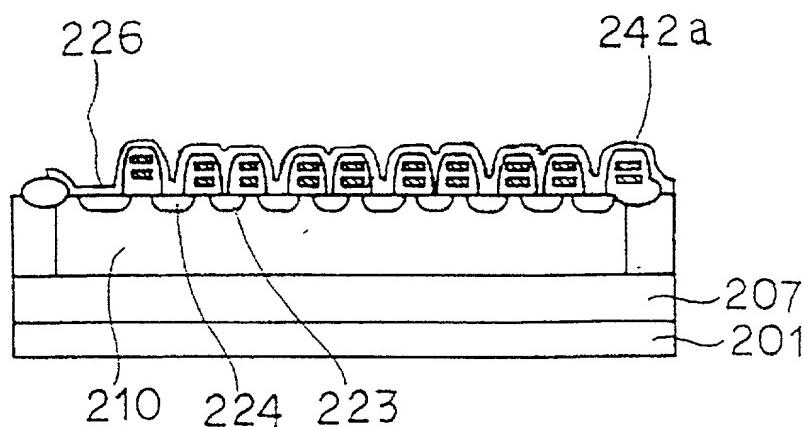


FIG. 92

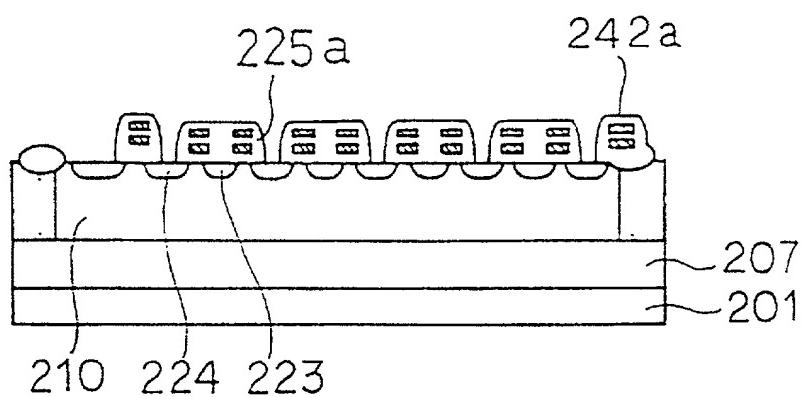


FIG. 93

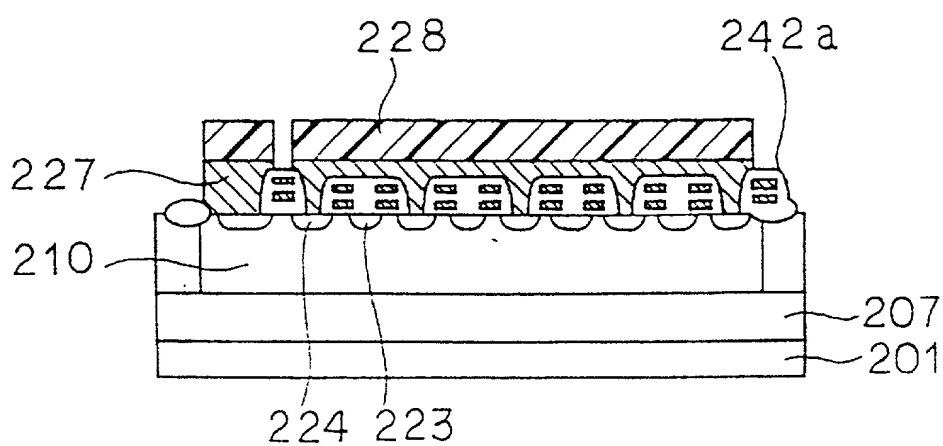


FIG. 94

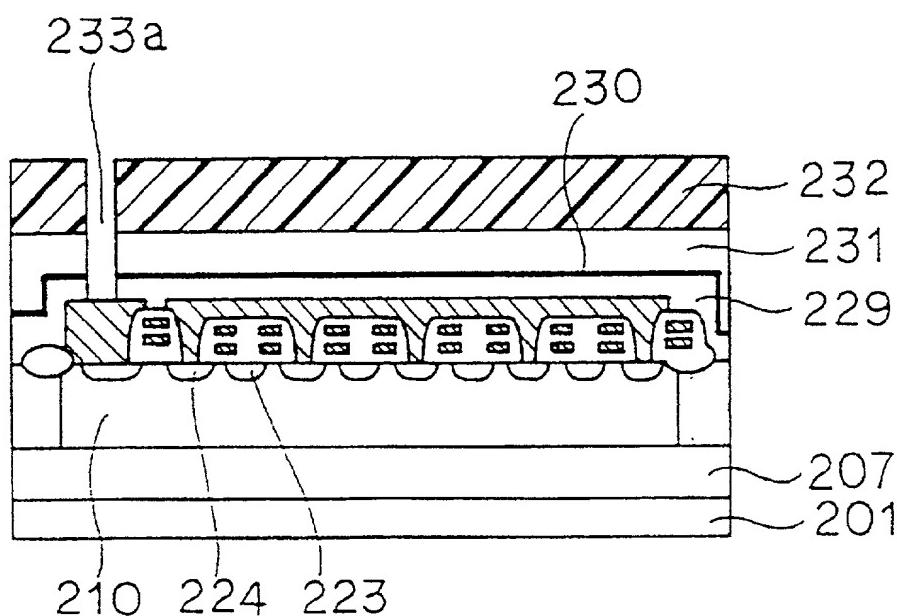


FIG. 95

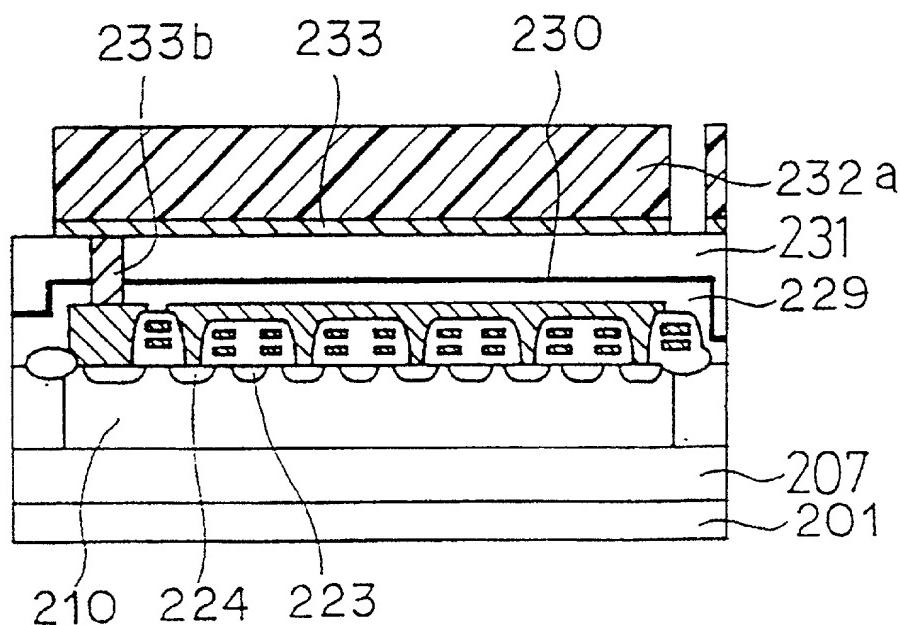


FIG. 96

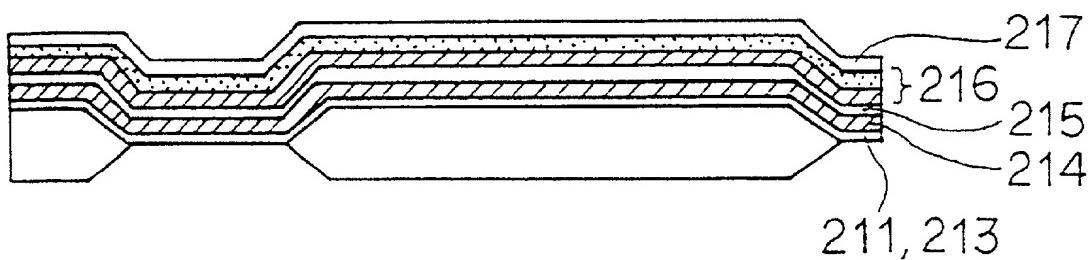


FIG. 97

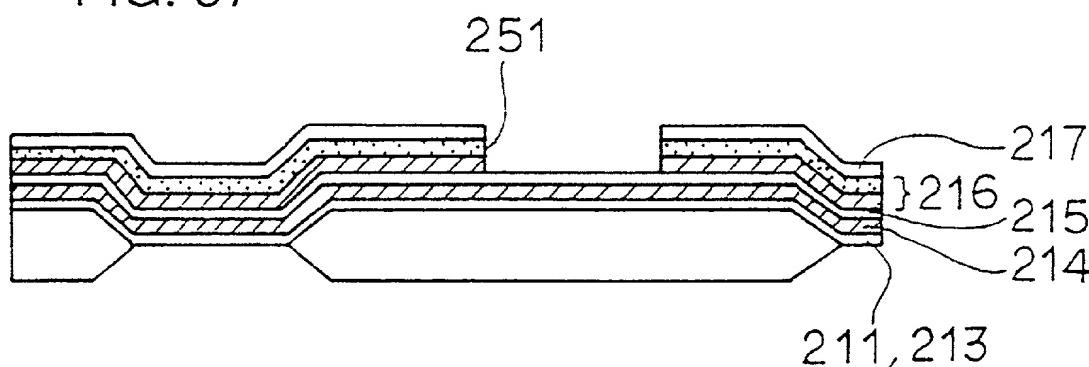


FIG. 98

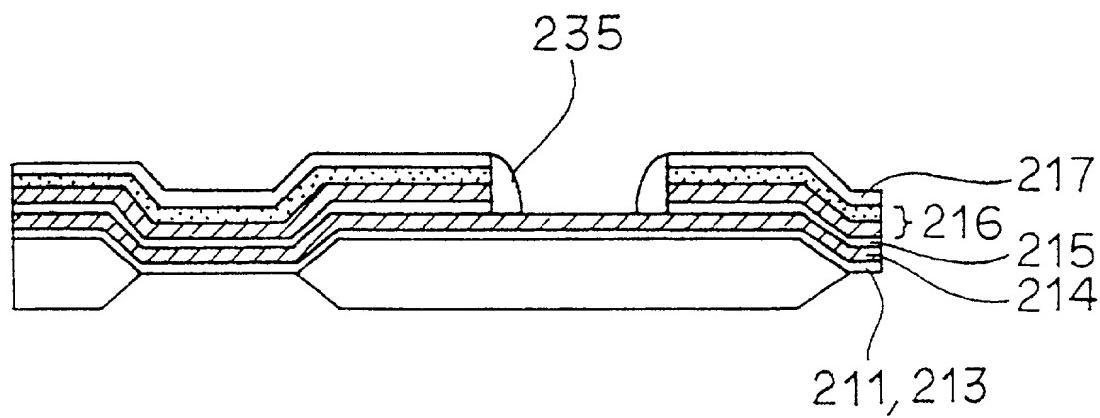


FIG. 99

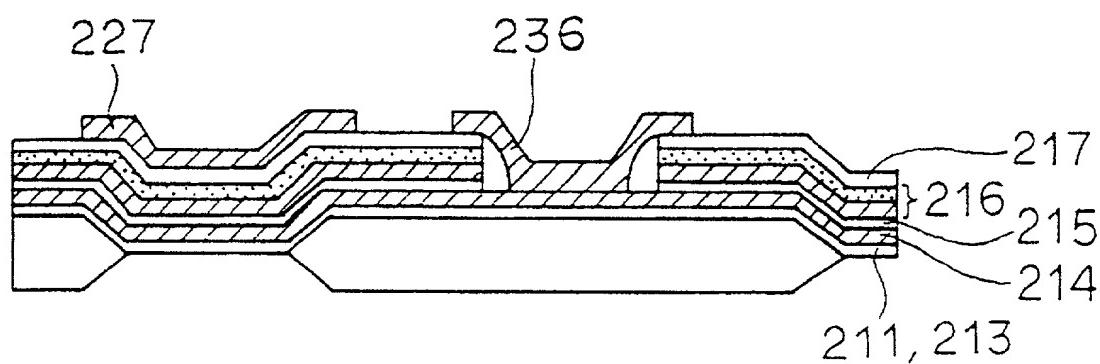


FIG. 100

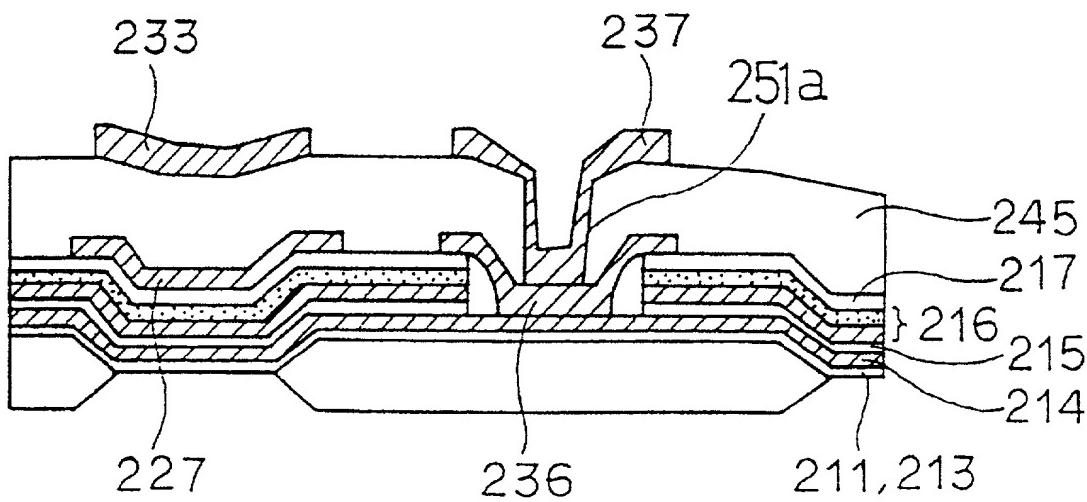


FIG. 101

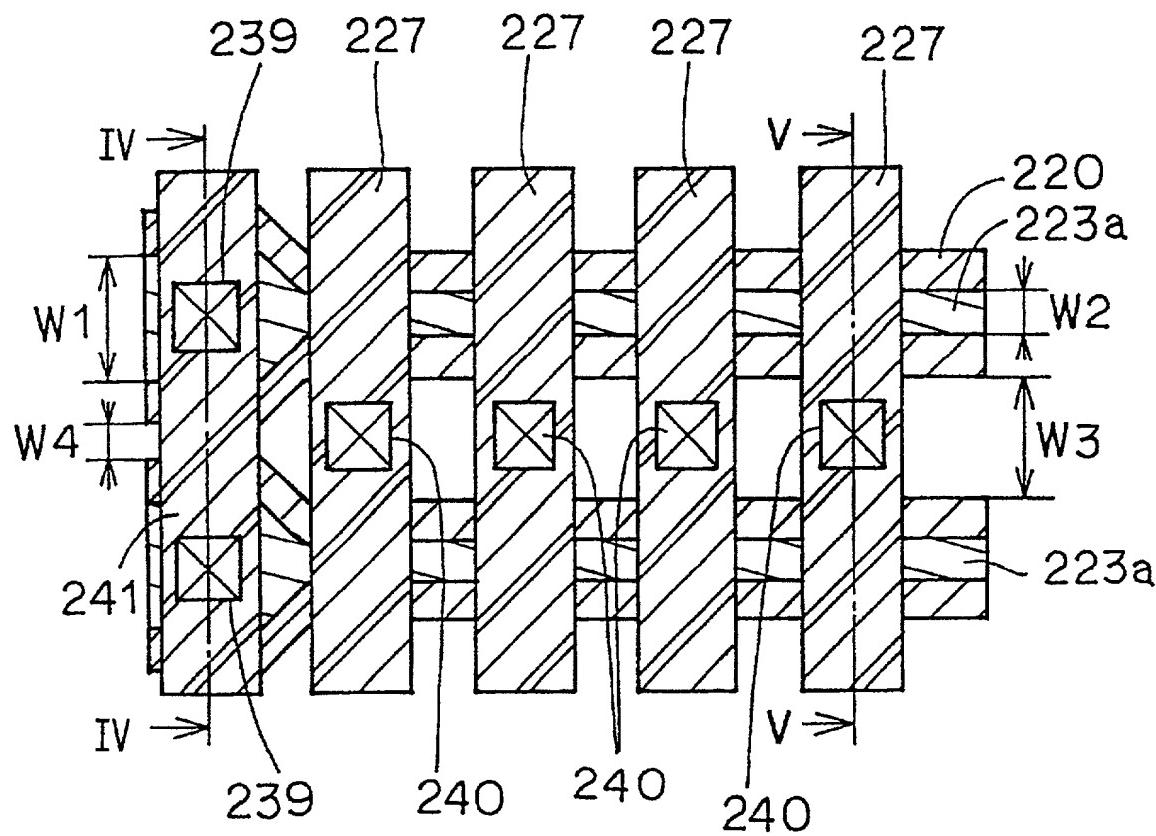


FIG. 102A

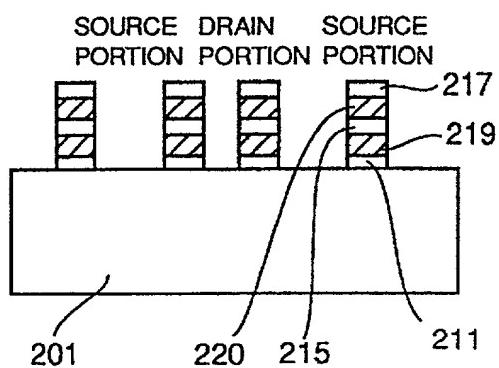


FIG. 102B

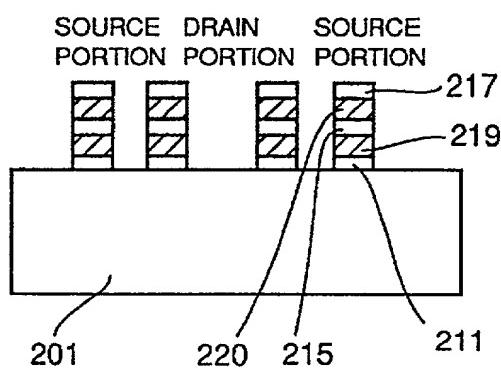


FIG. 103A

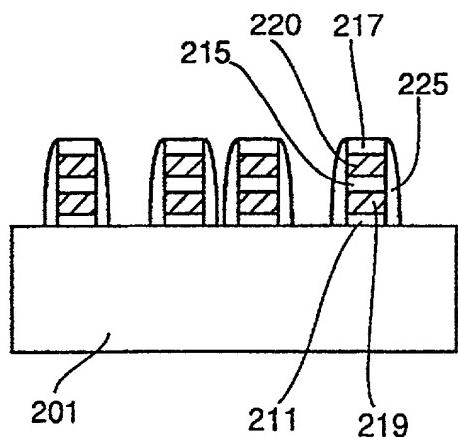


FIG. 103B

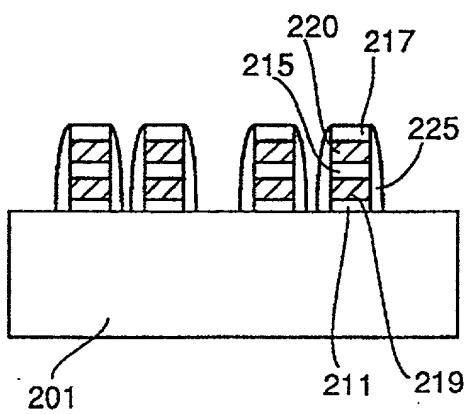


FIG. 104A

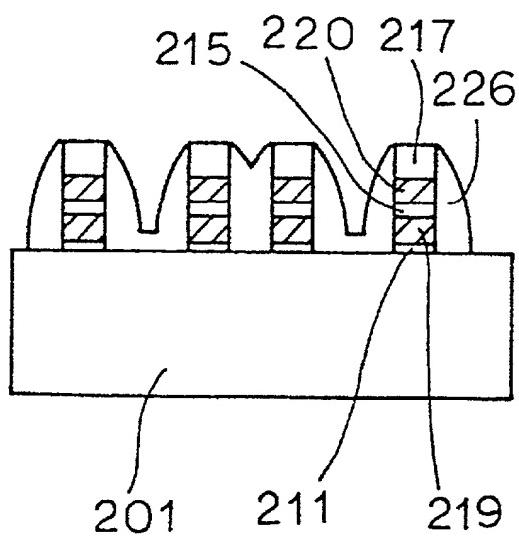


FIG. 104B

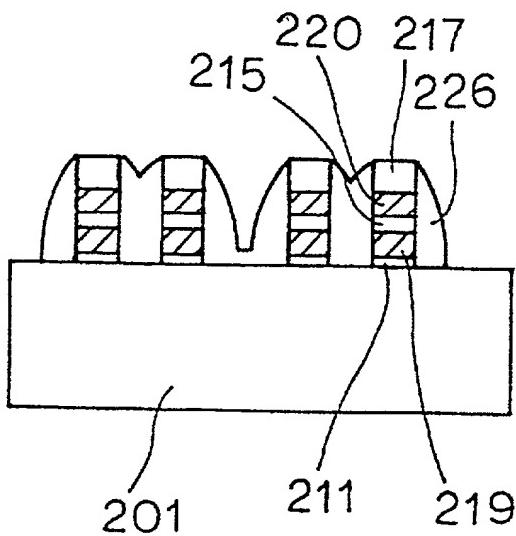


FIG. 105A

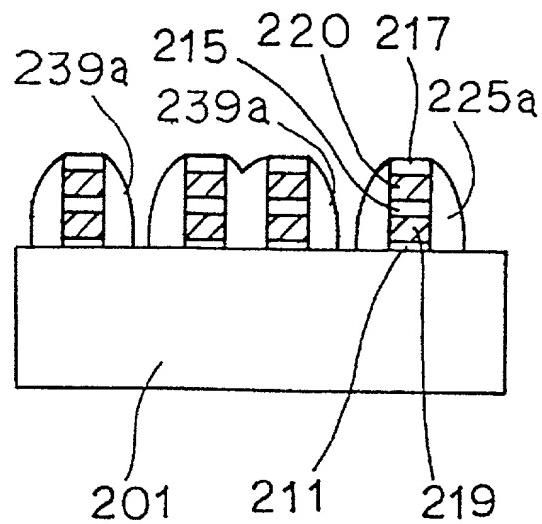


FIG. 105B

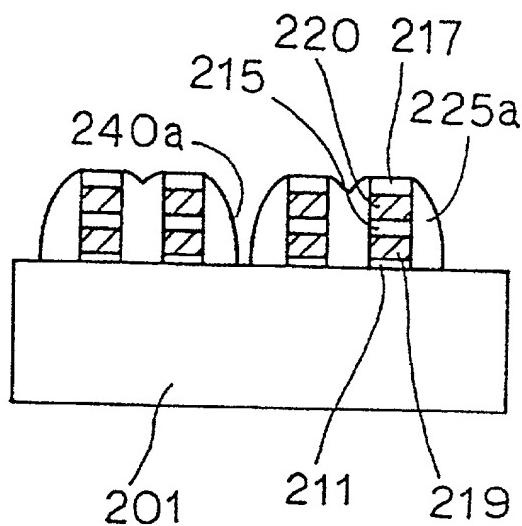


FIG. 106A

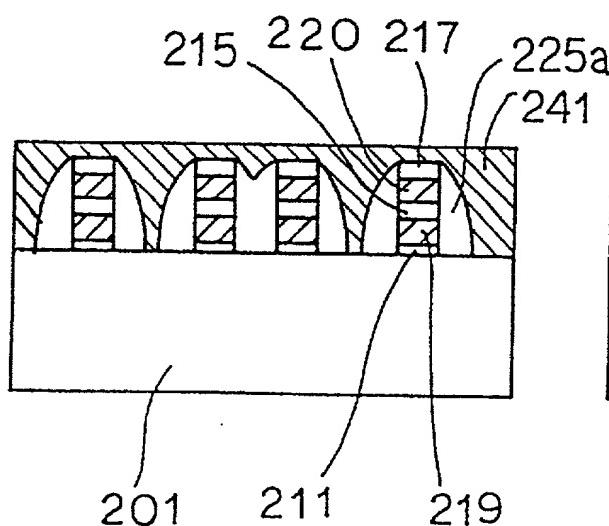


FIG. 106B

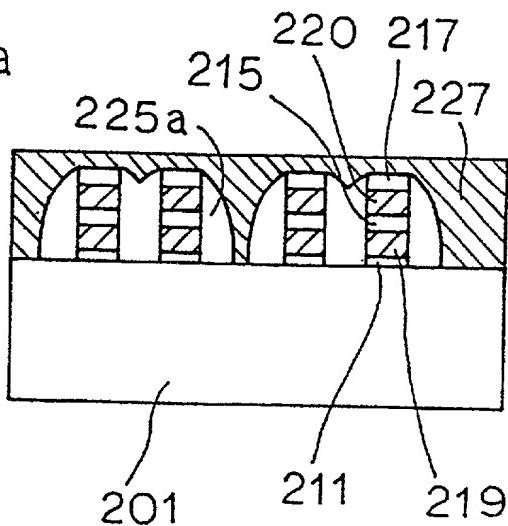


FIG. 107A

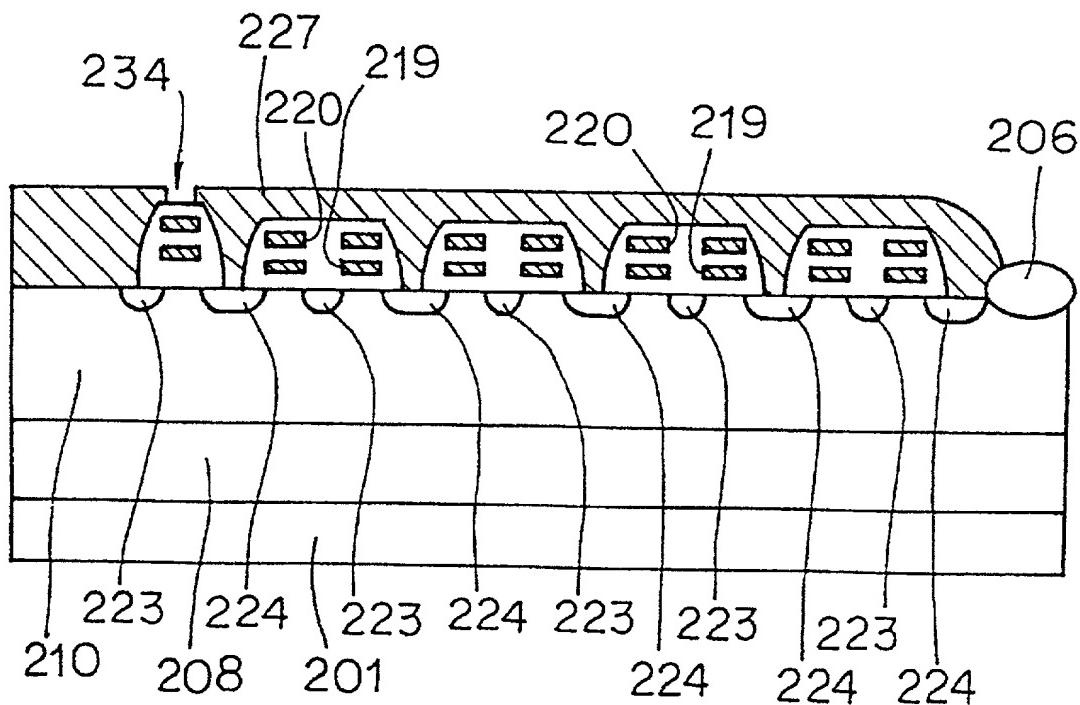
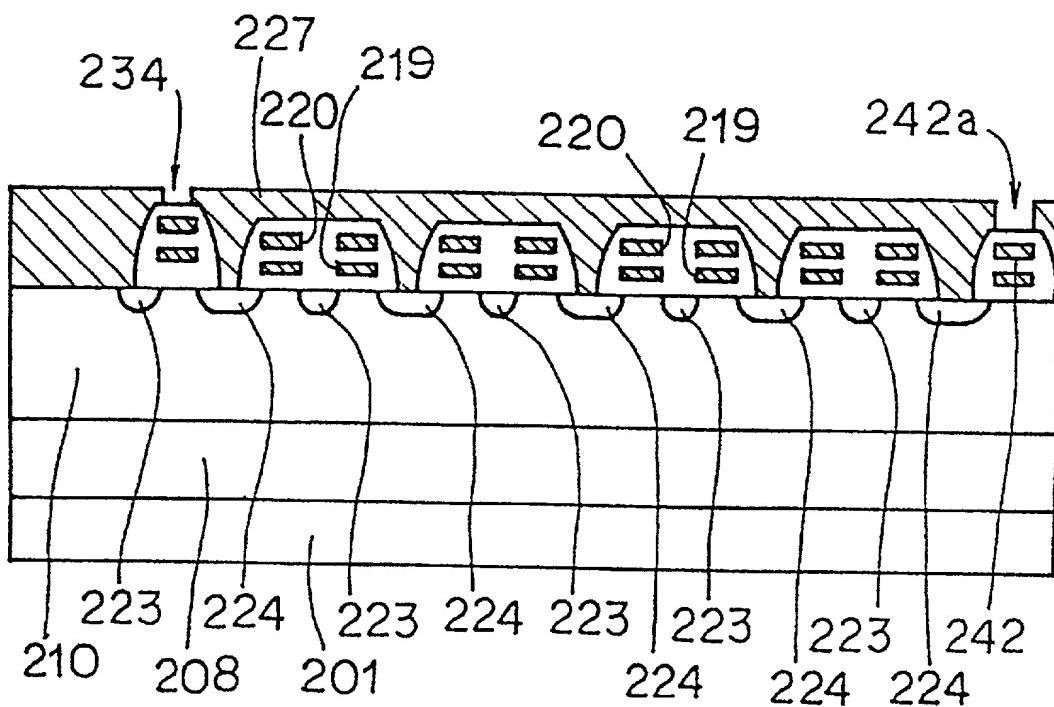


FIG. 107B



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FIG. 108

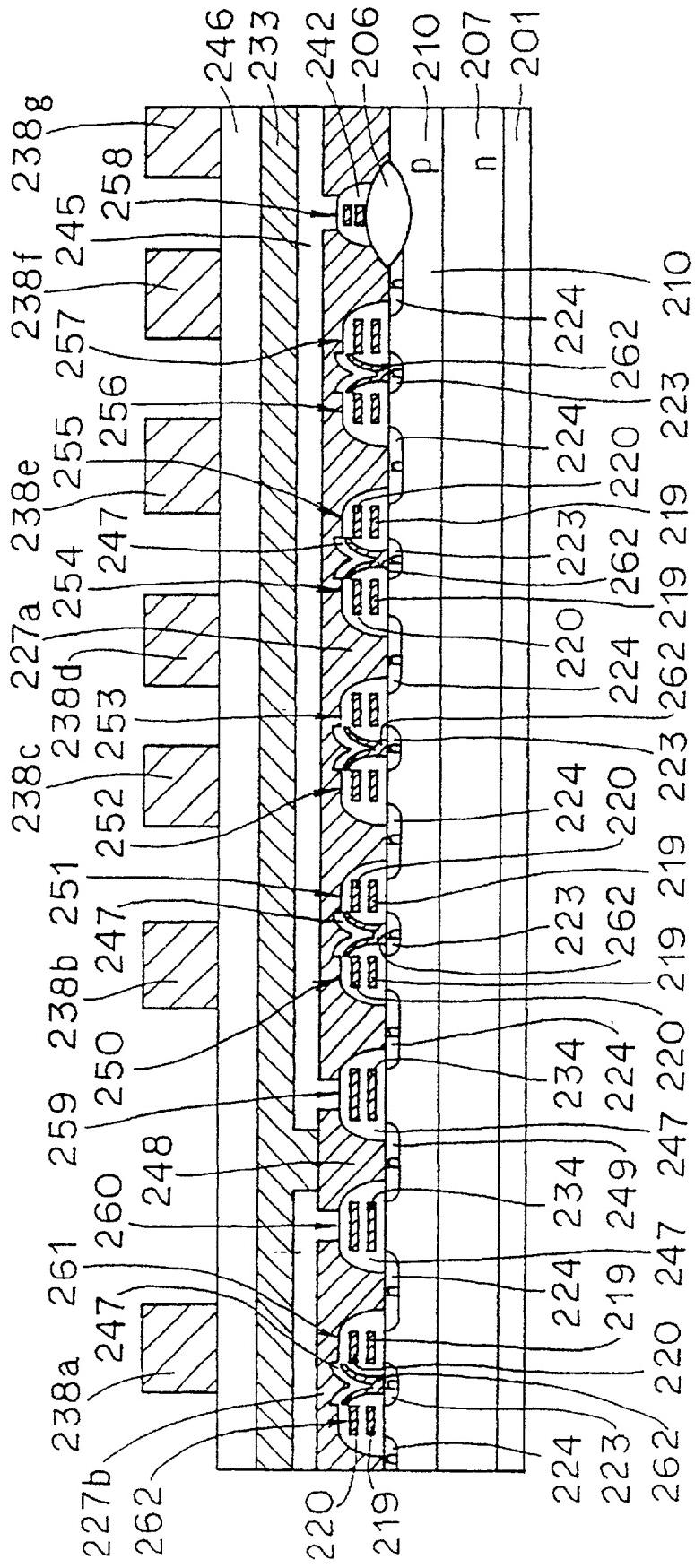


FIG. 109

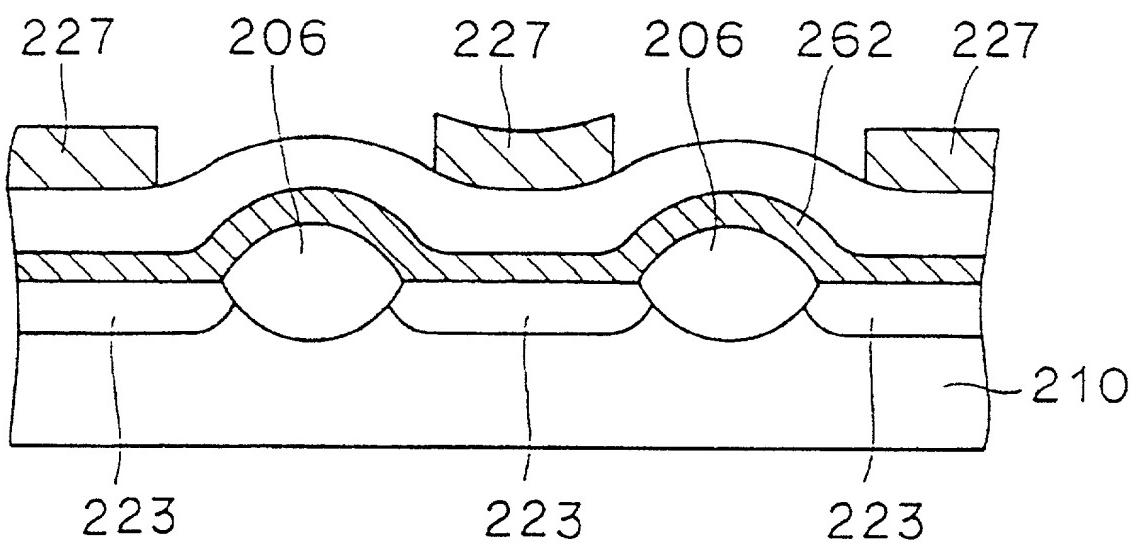


FIG. 110

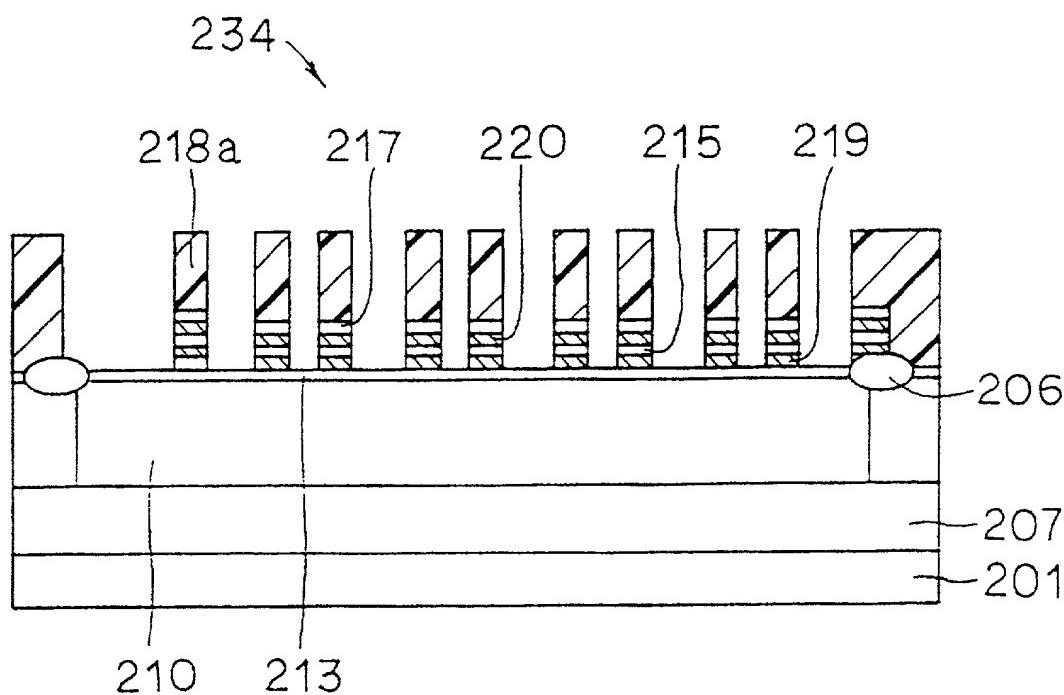


FIG. 111

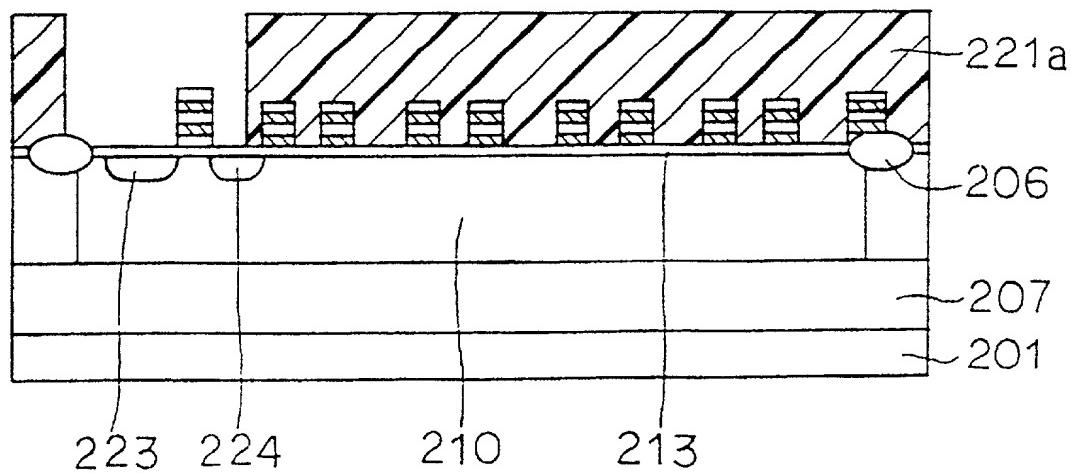


FIG. 112

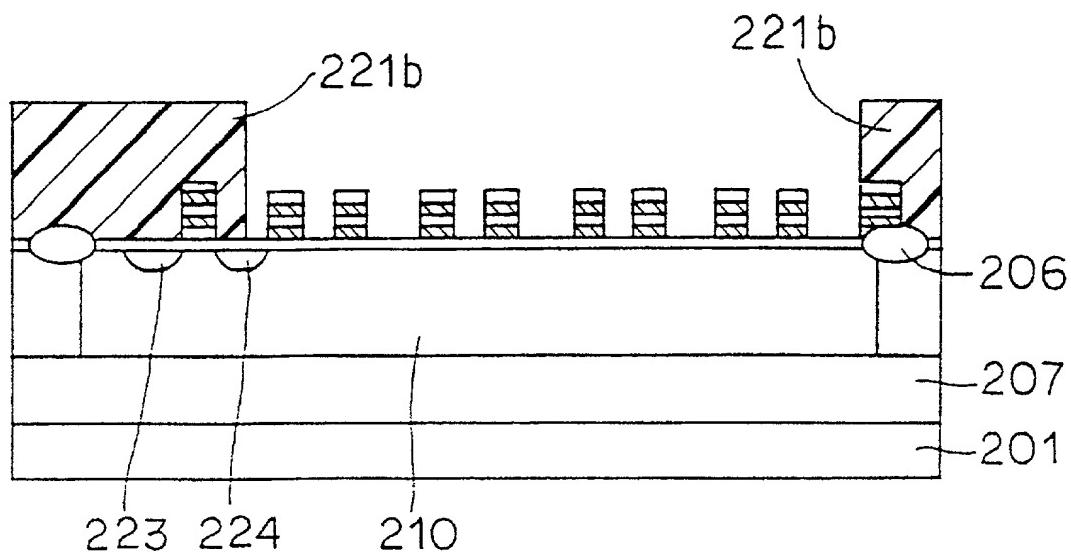


FIG. 113

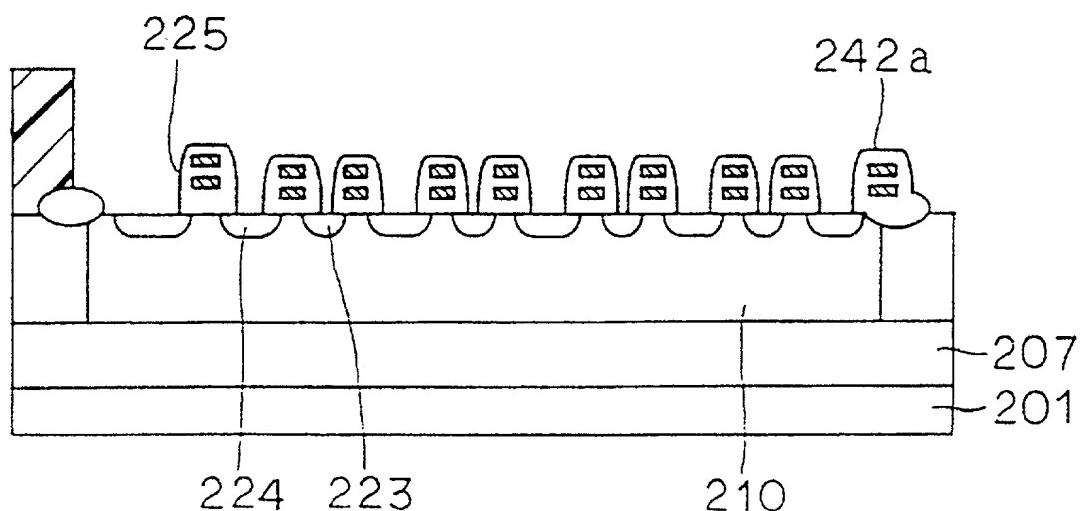


FIG. 114

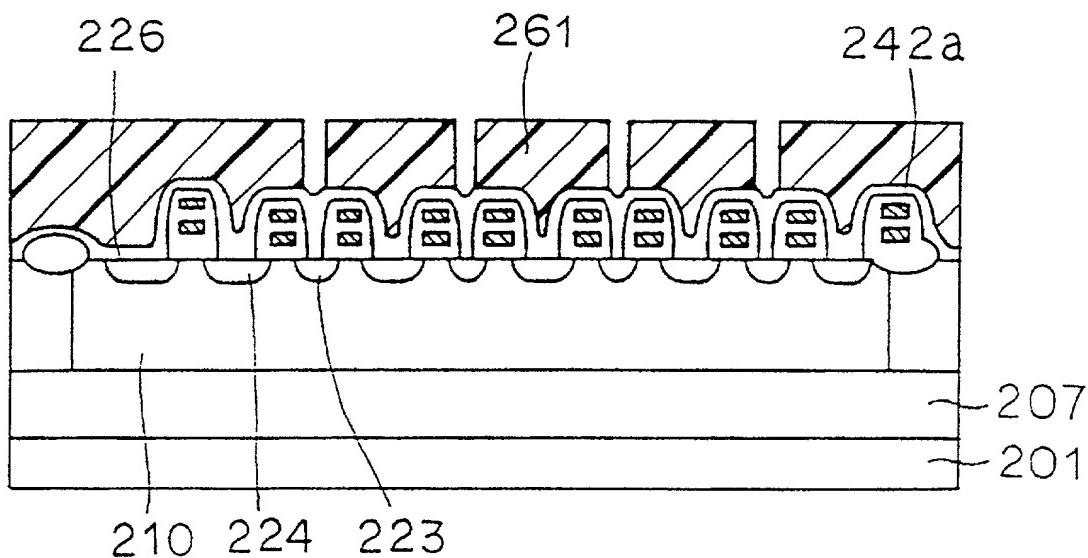


FIG. 115

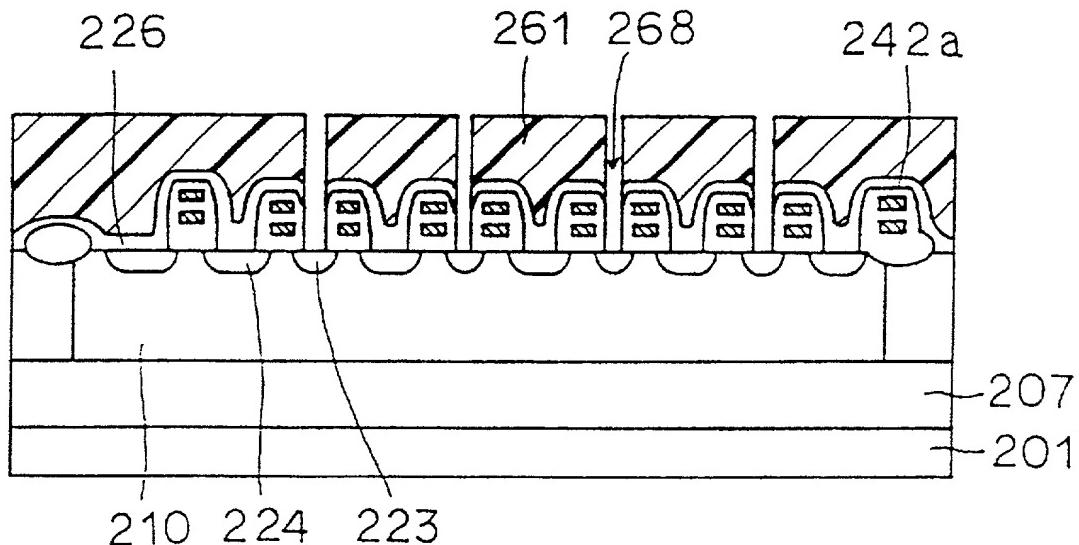


FIG. 116

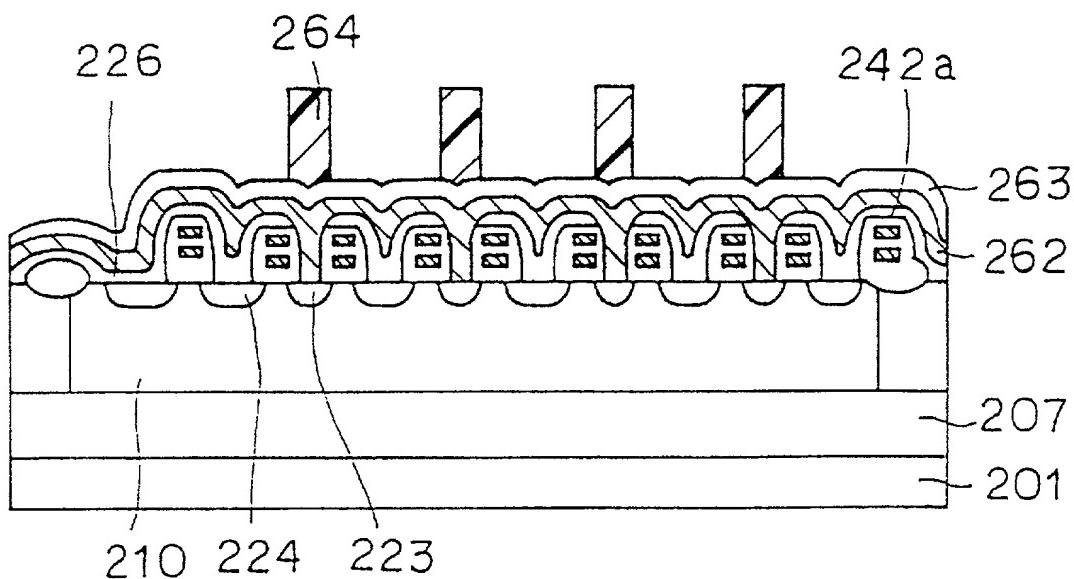


FIG. 117

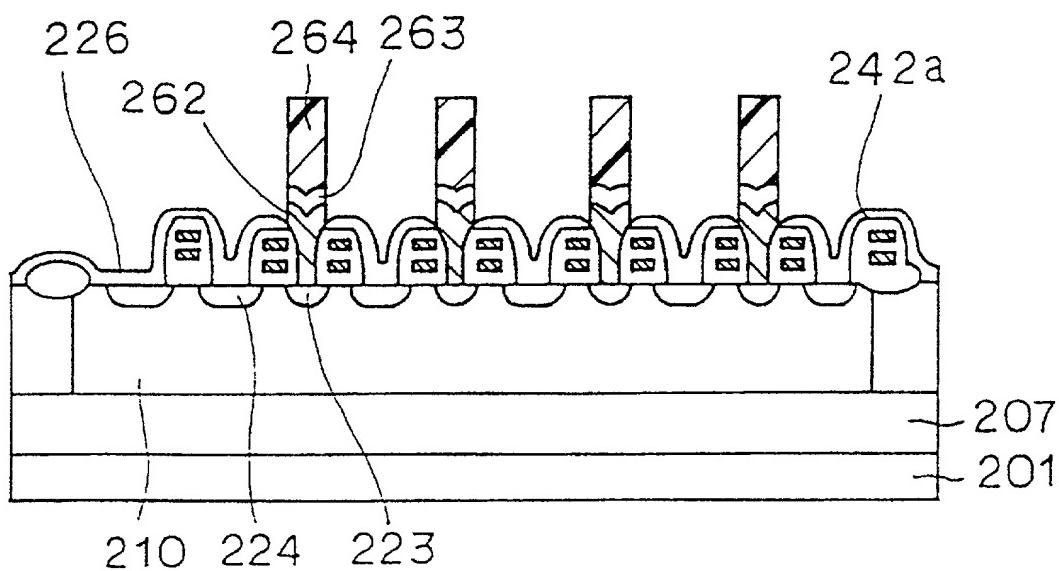


FIG. 118

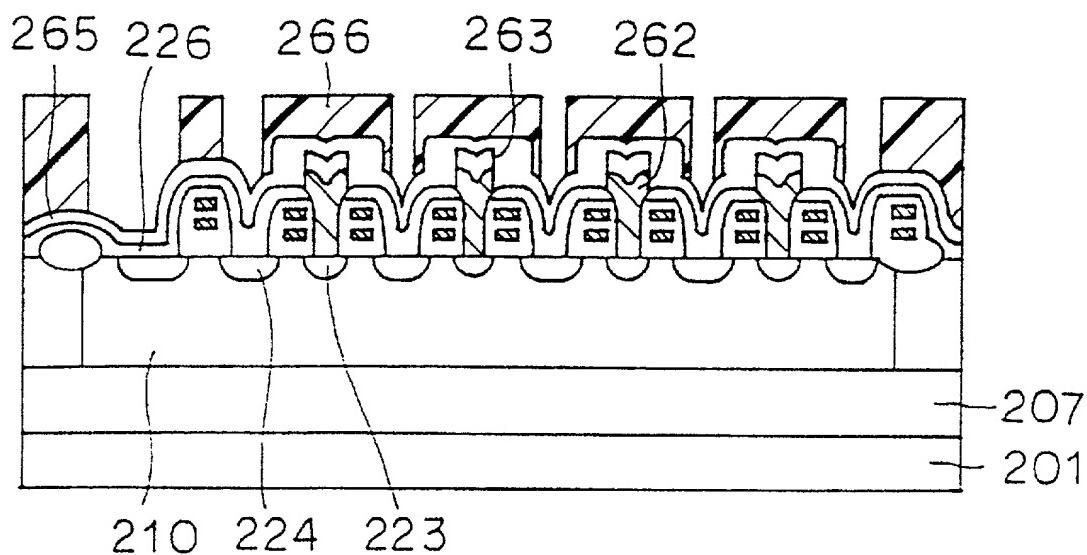


FIG. 119

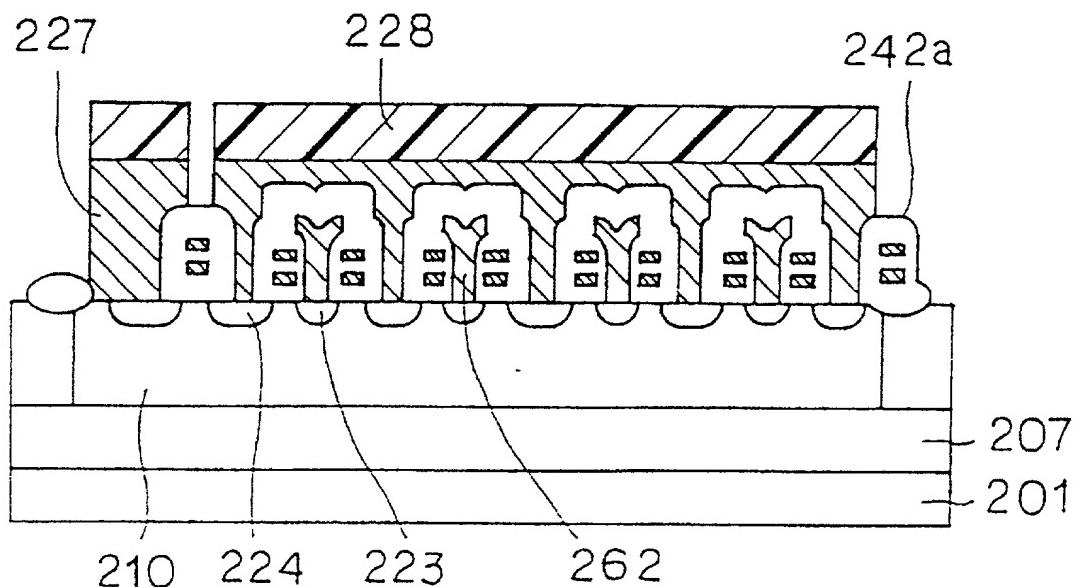


FIG. 120

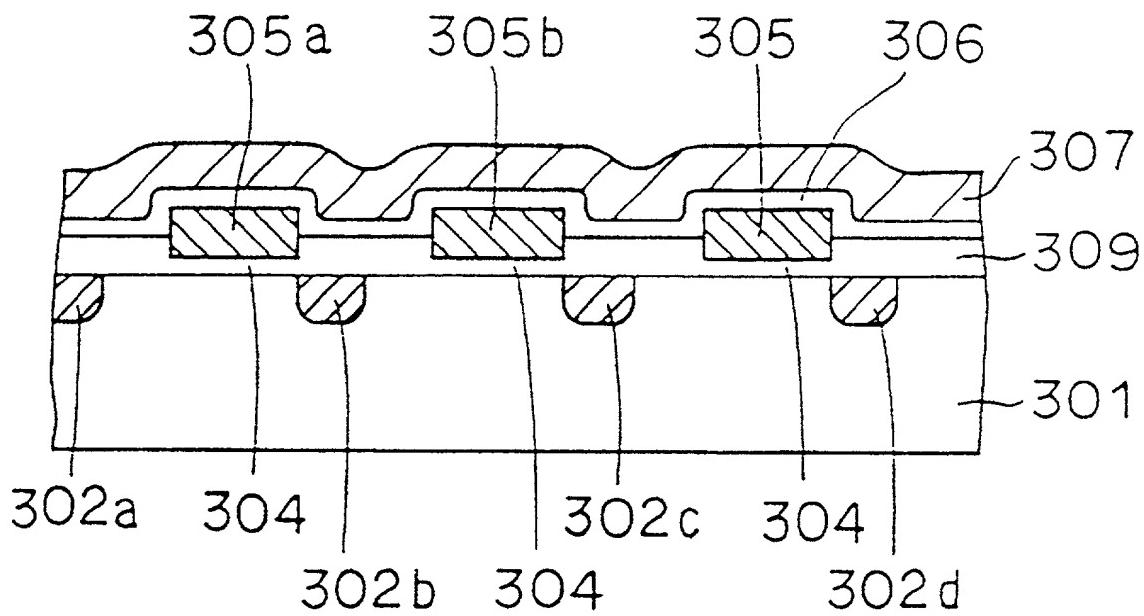


FIG. 121A

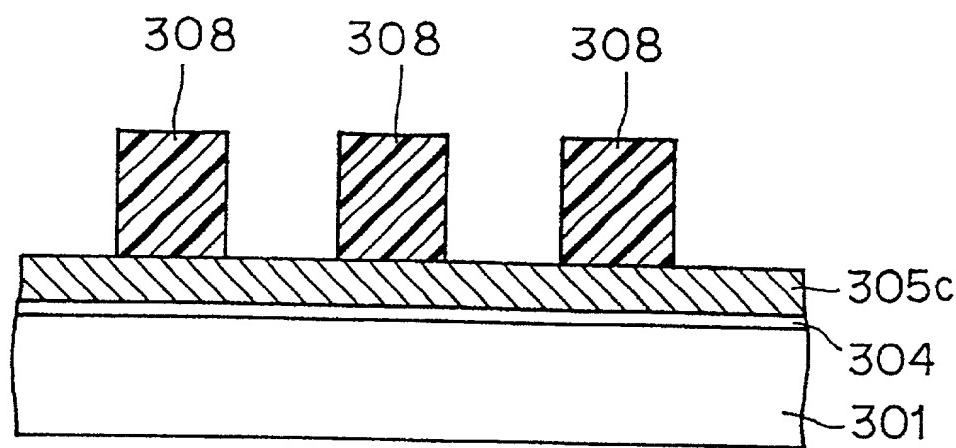


FIG. 121B

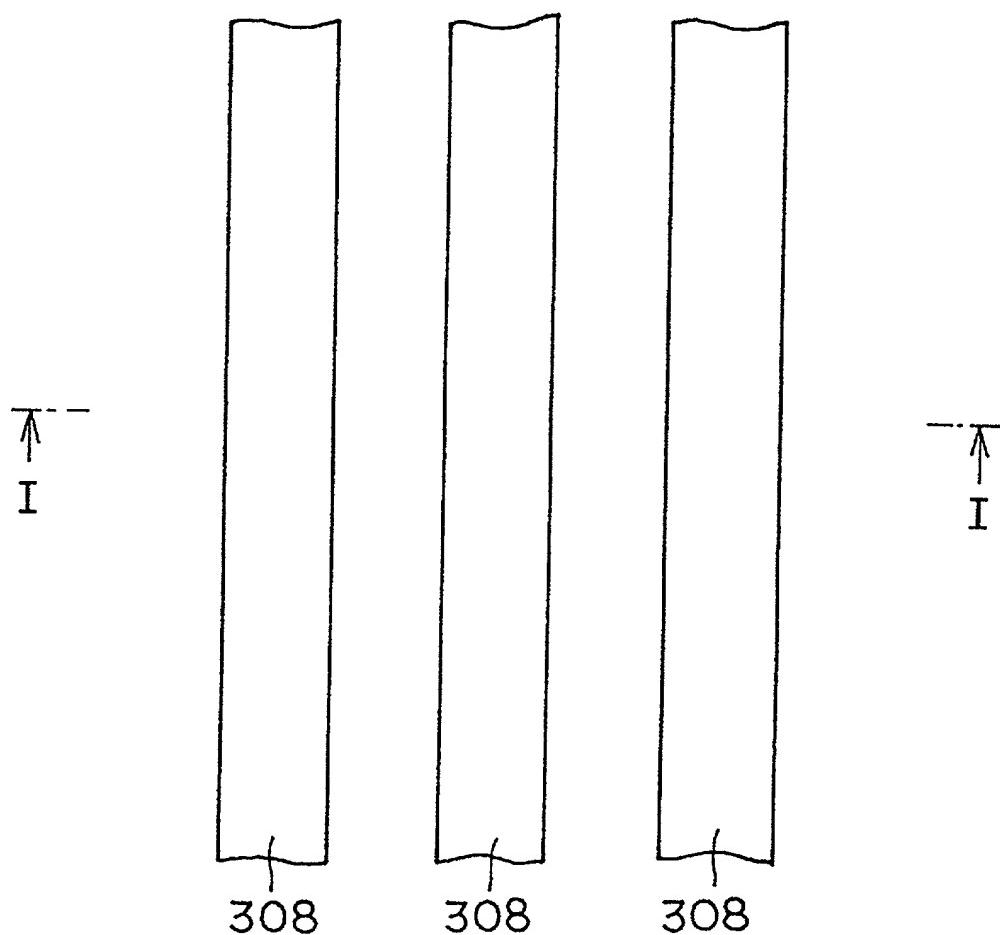


FIG. 122A

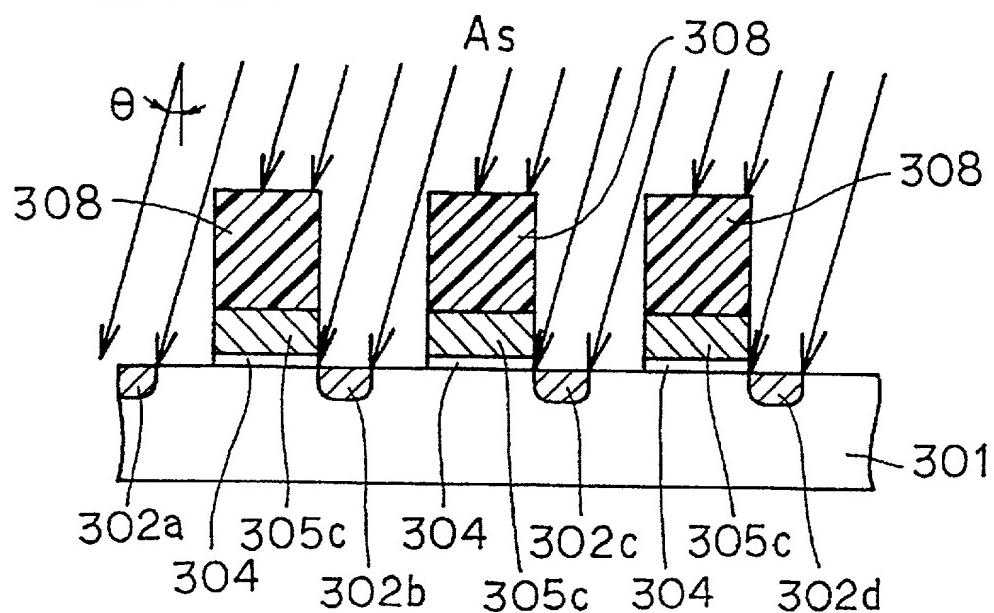


FIG. 122B

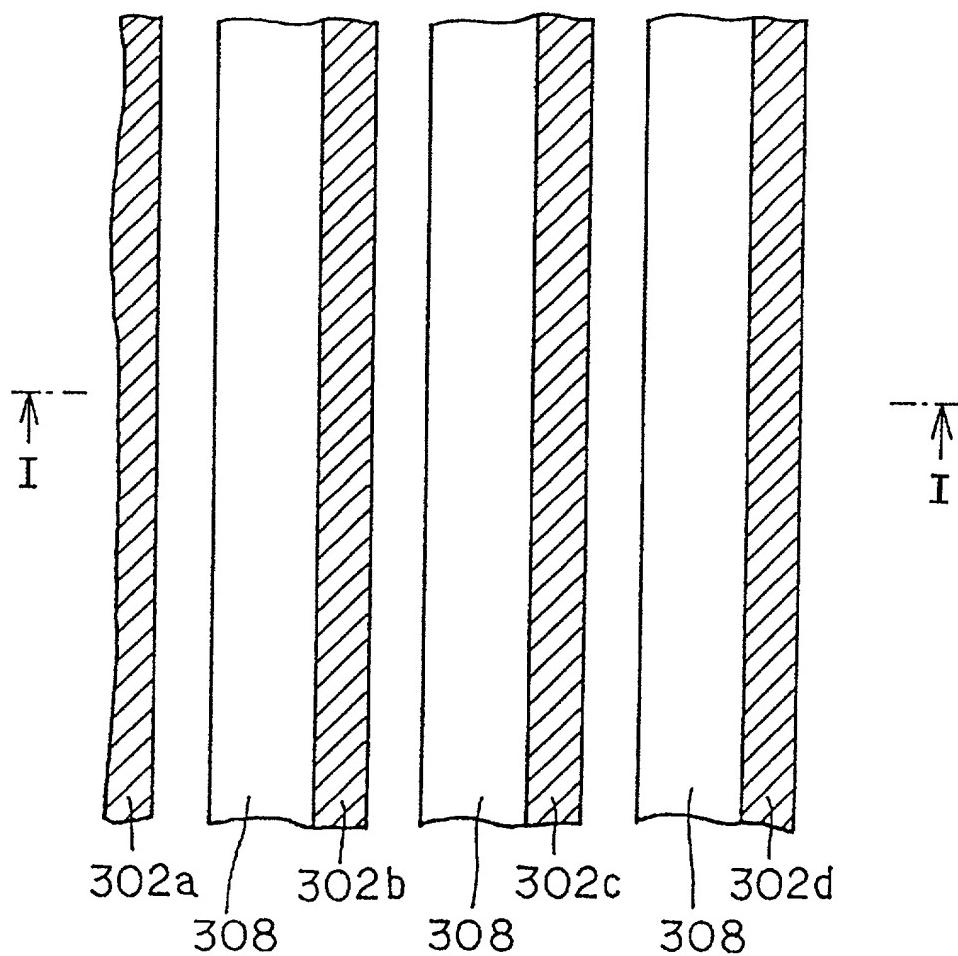


FIG. 123

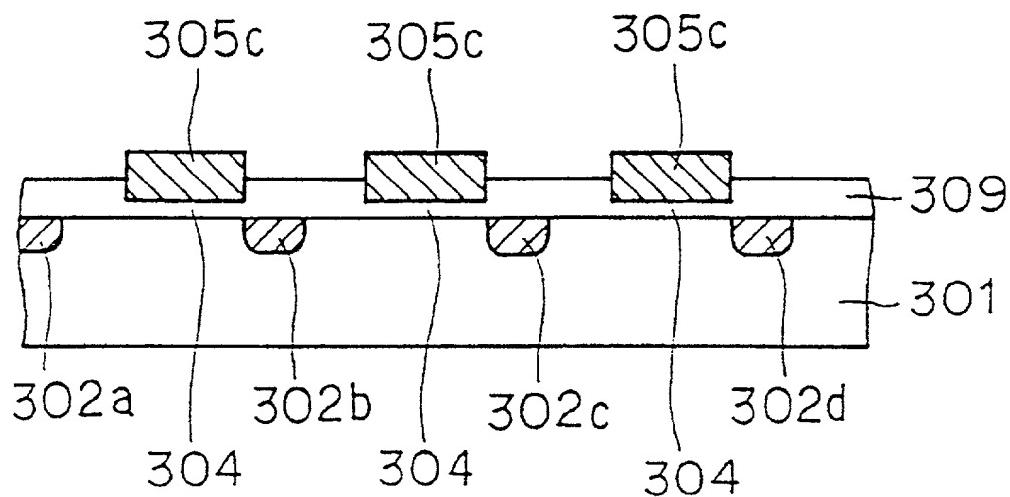


FIG. 124

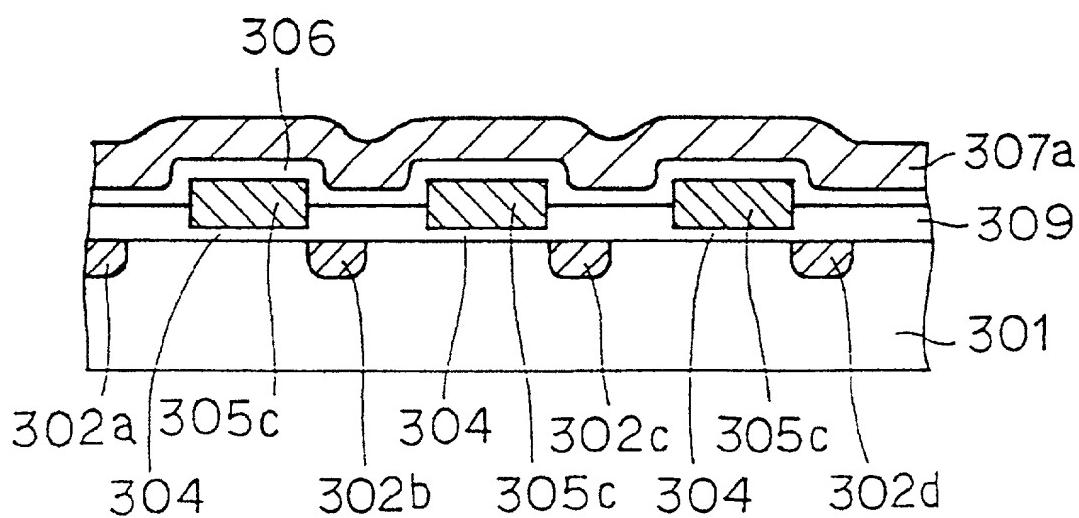


FIG. 125A

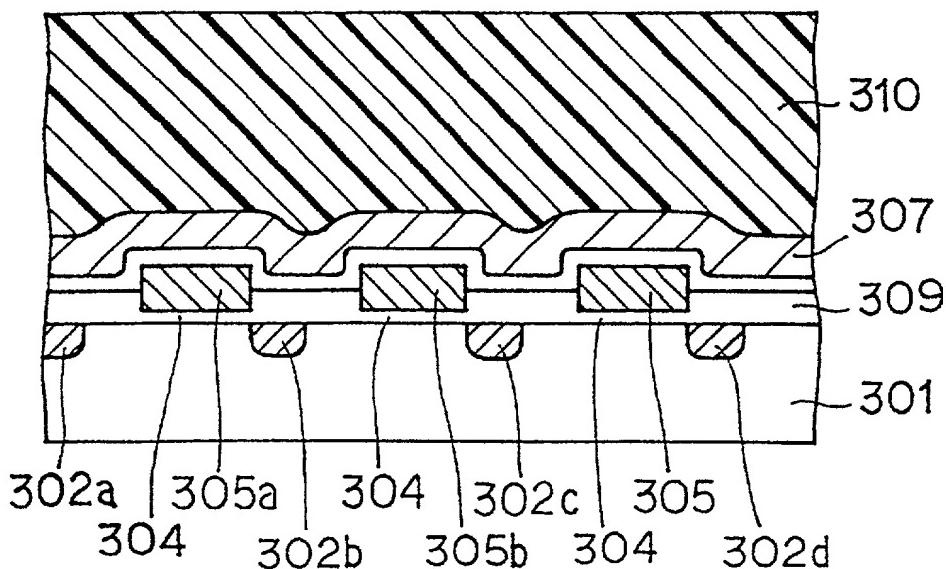


FIG. 125B

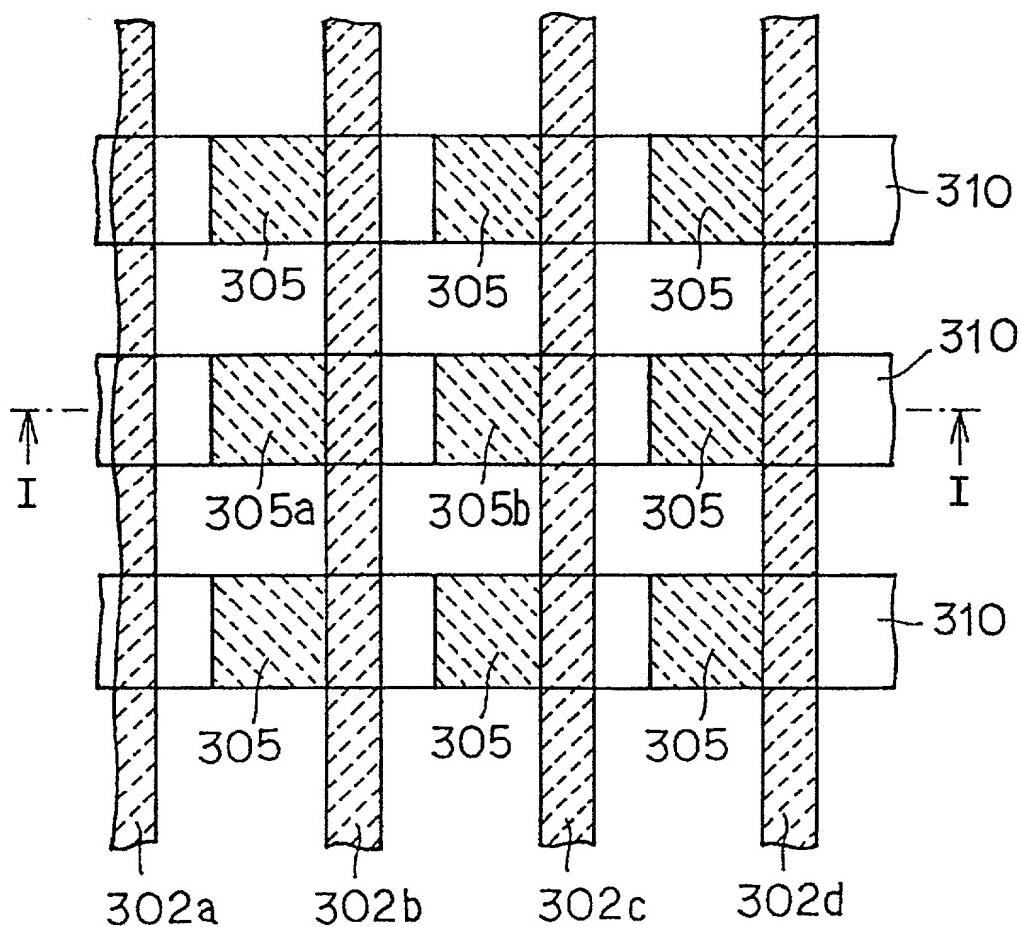


FIG. 126

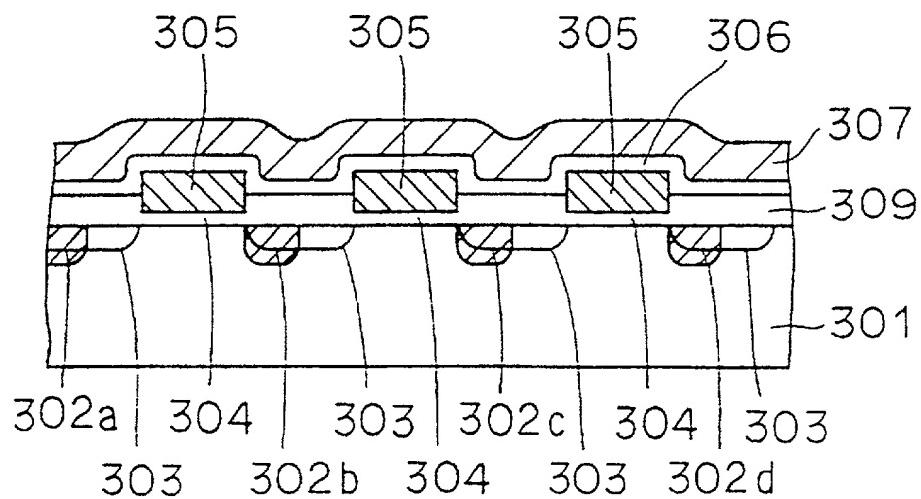


FIG. 127

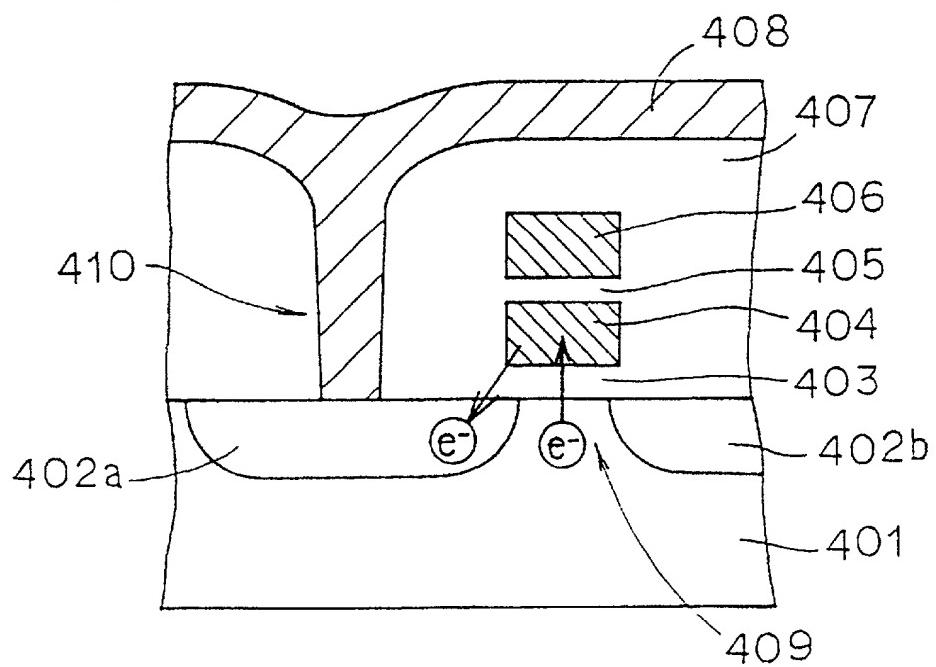


FIG. 128 PRIOR ART

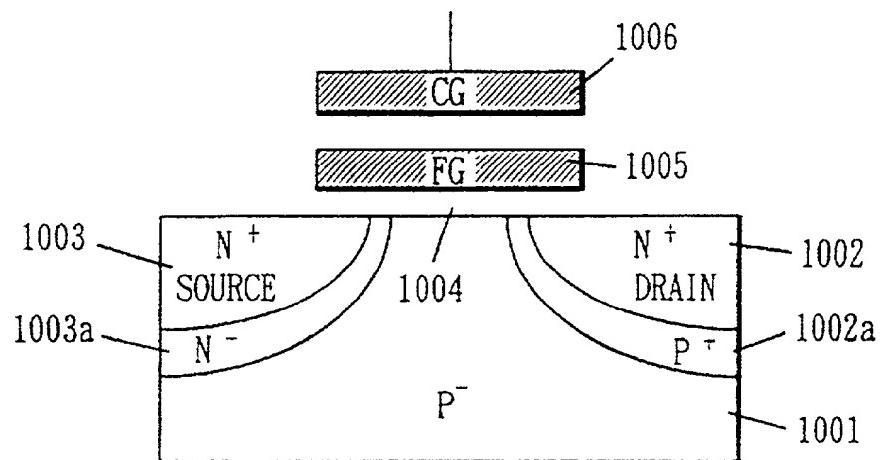


FIG. 129 PRIOR ART

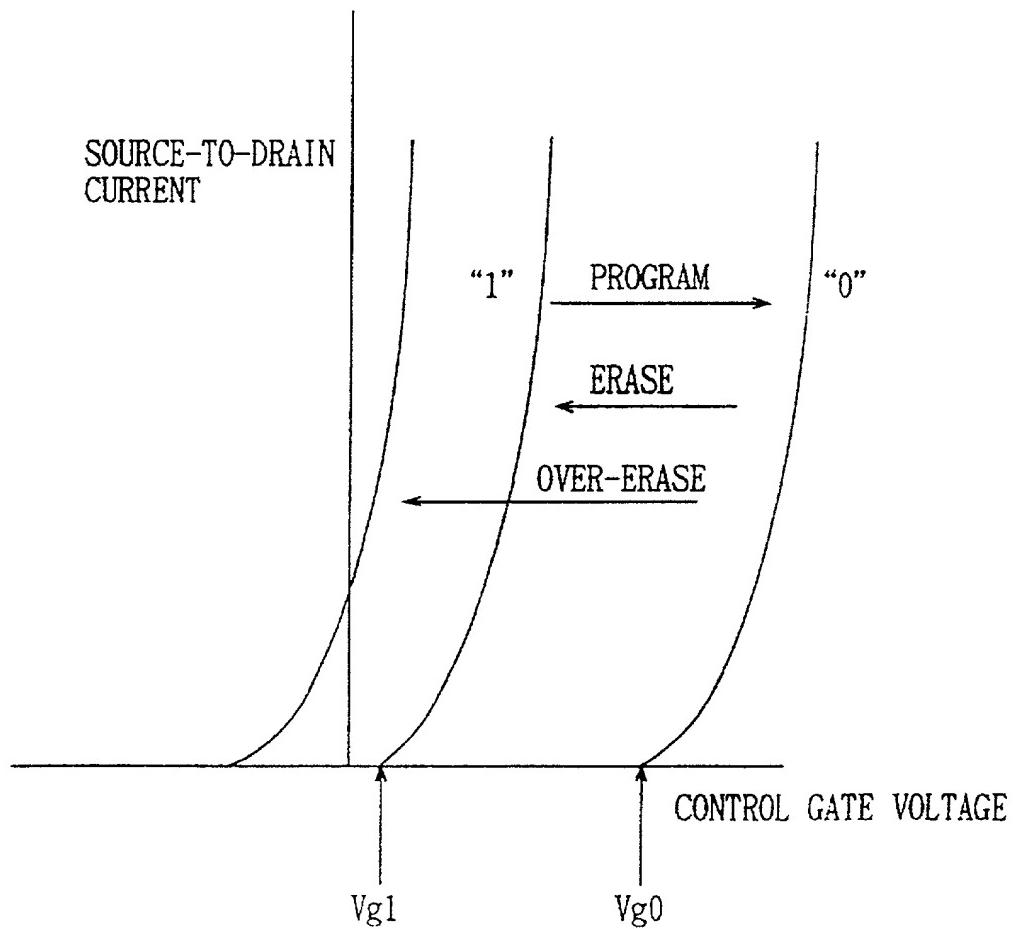


FIG. 130A

PRIOR ART

(PROGRAM)

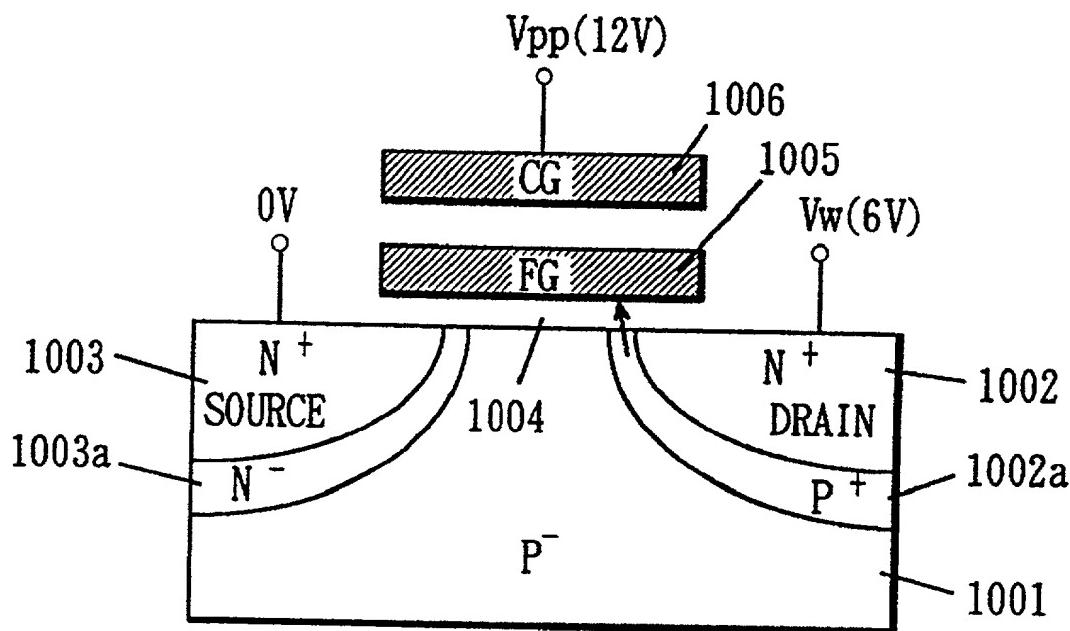


FIG. 130B

PRIOR ART

(ERASE)

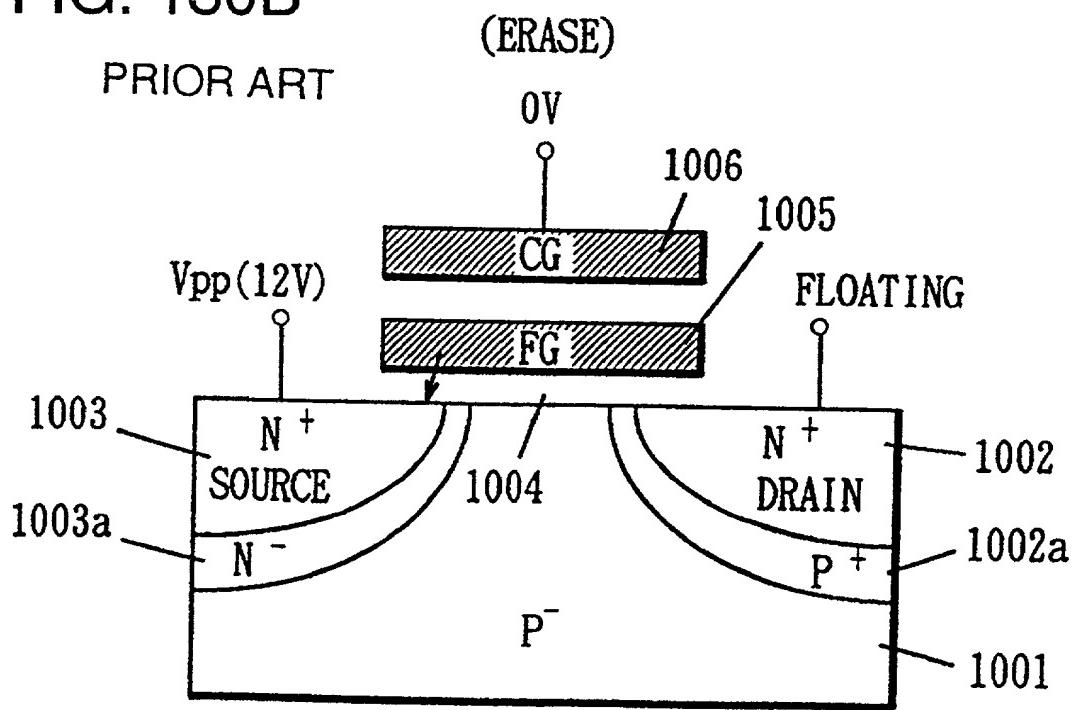


FIG. 131 PRIOR ART

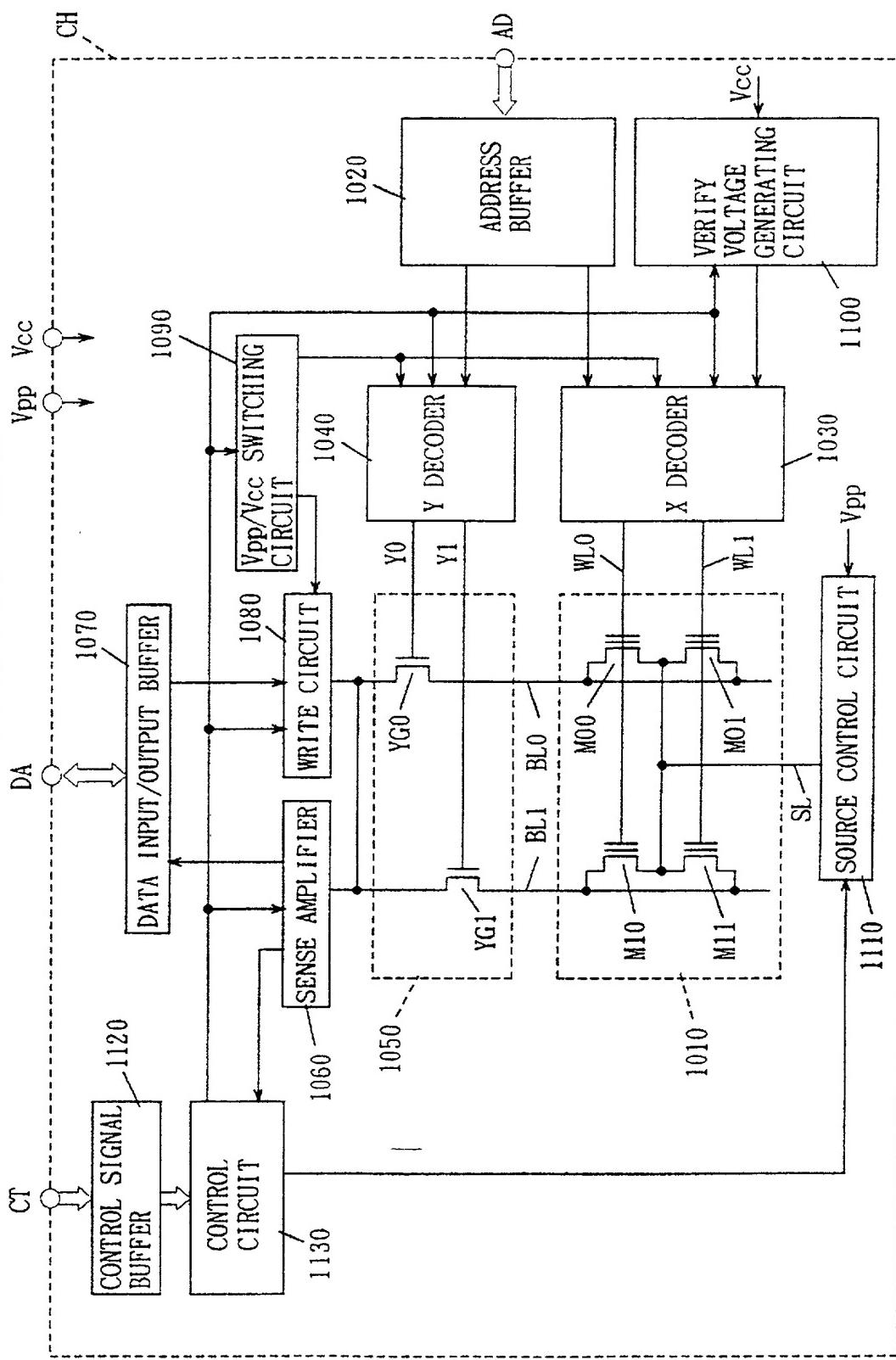


FIG. 132 PRIOR ART

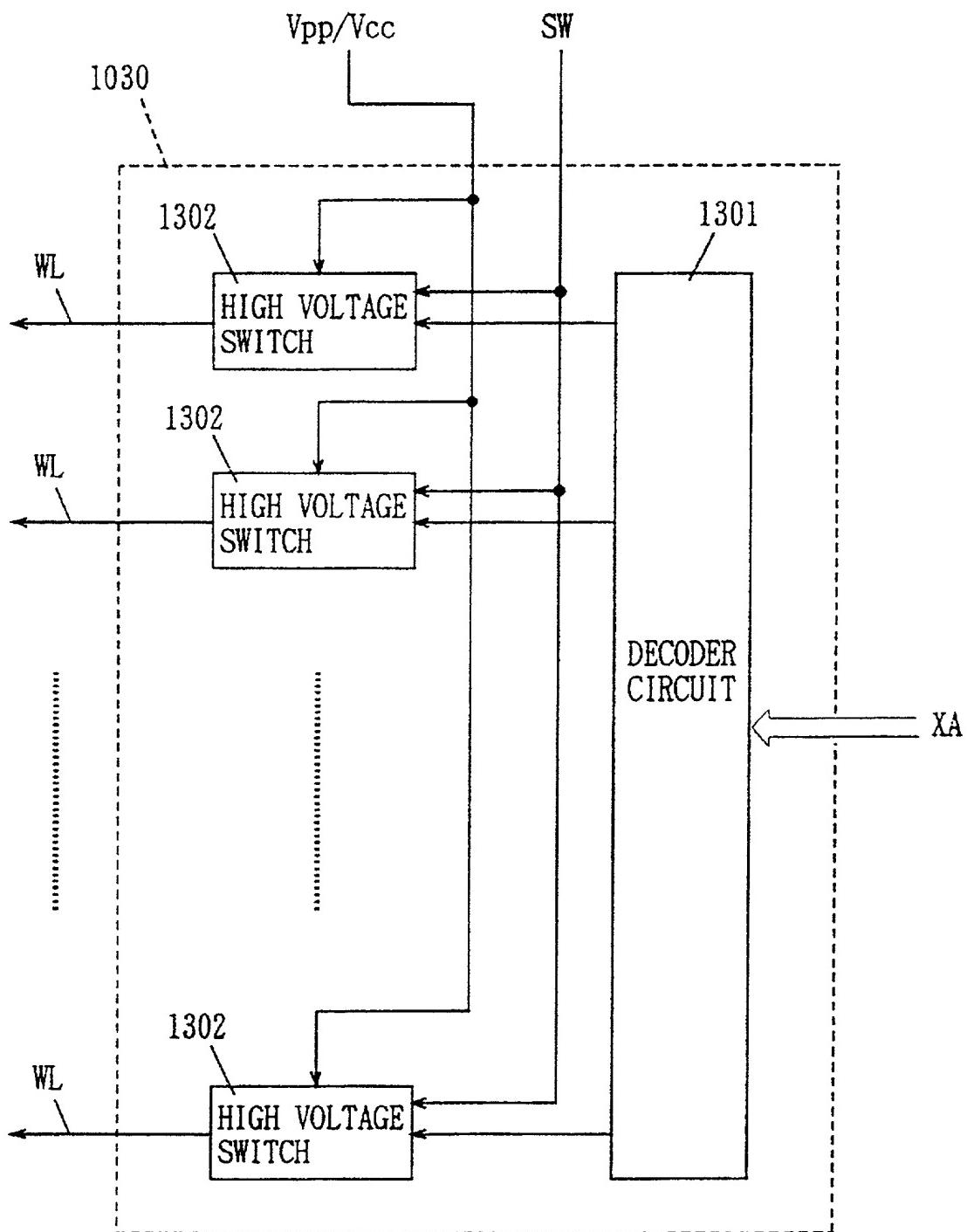
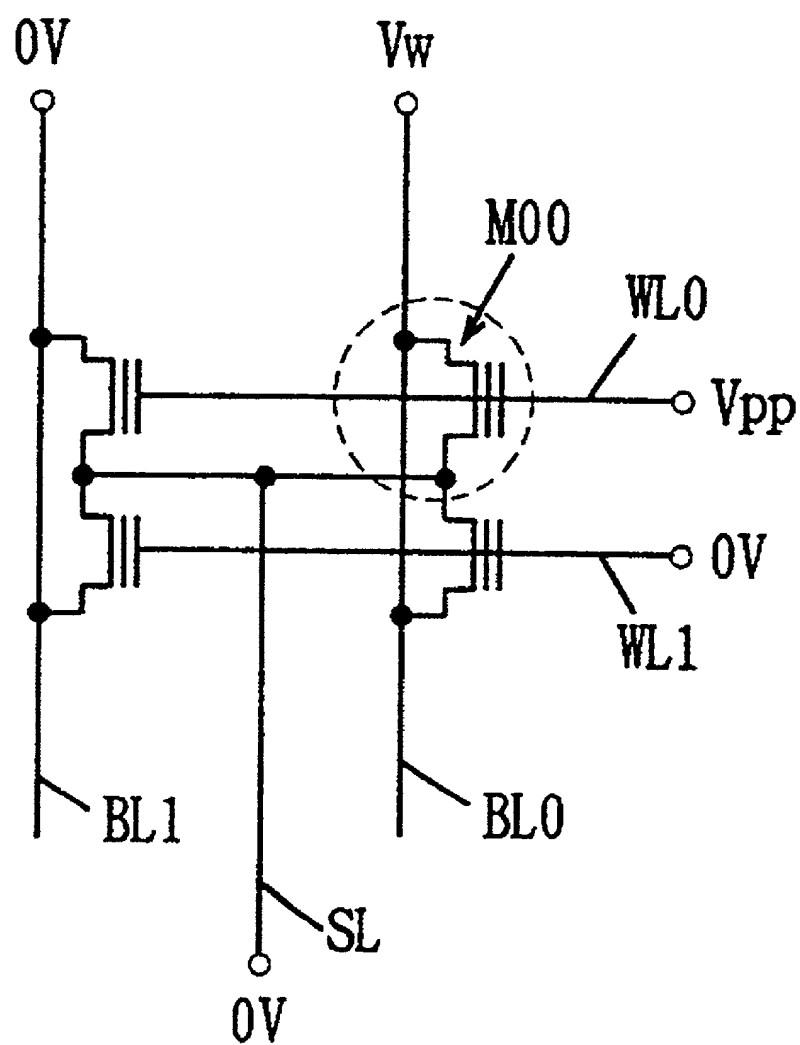
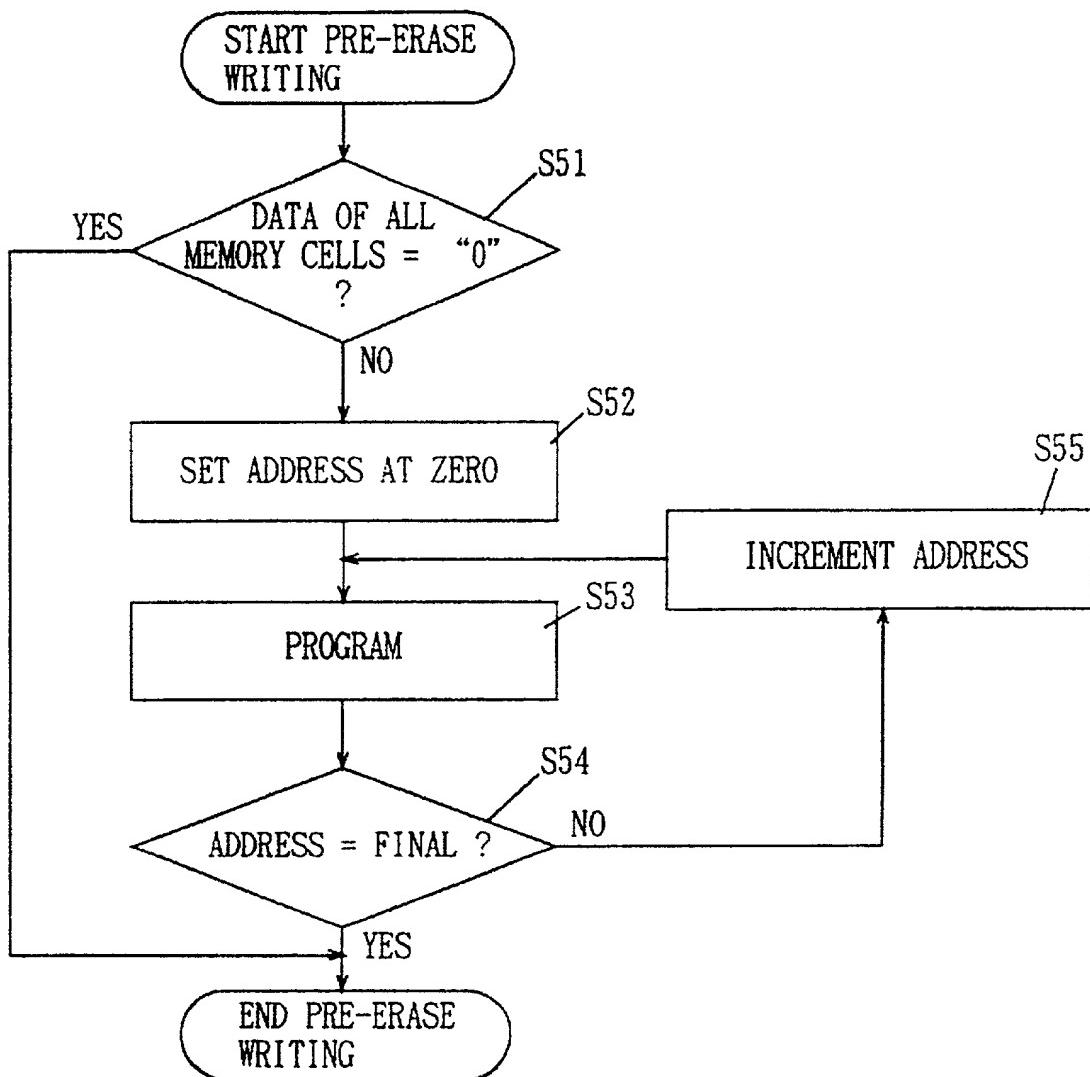


FIG. 133 PRIOR ART

(PROGRAM OPERATION)



F I G. 1 3 4 PRIOR ART



F I G. 135 PRIOR ART

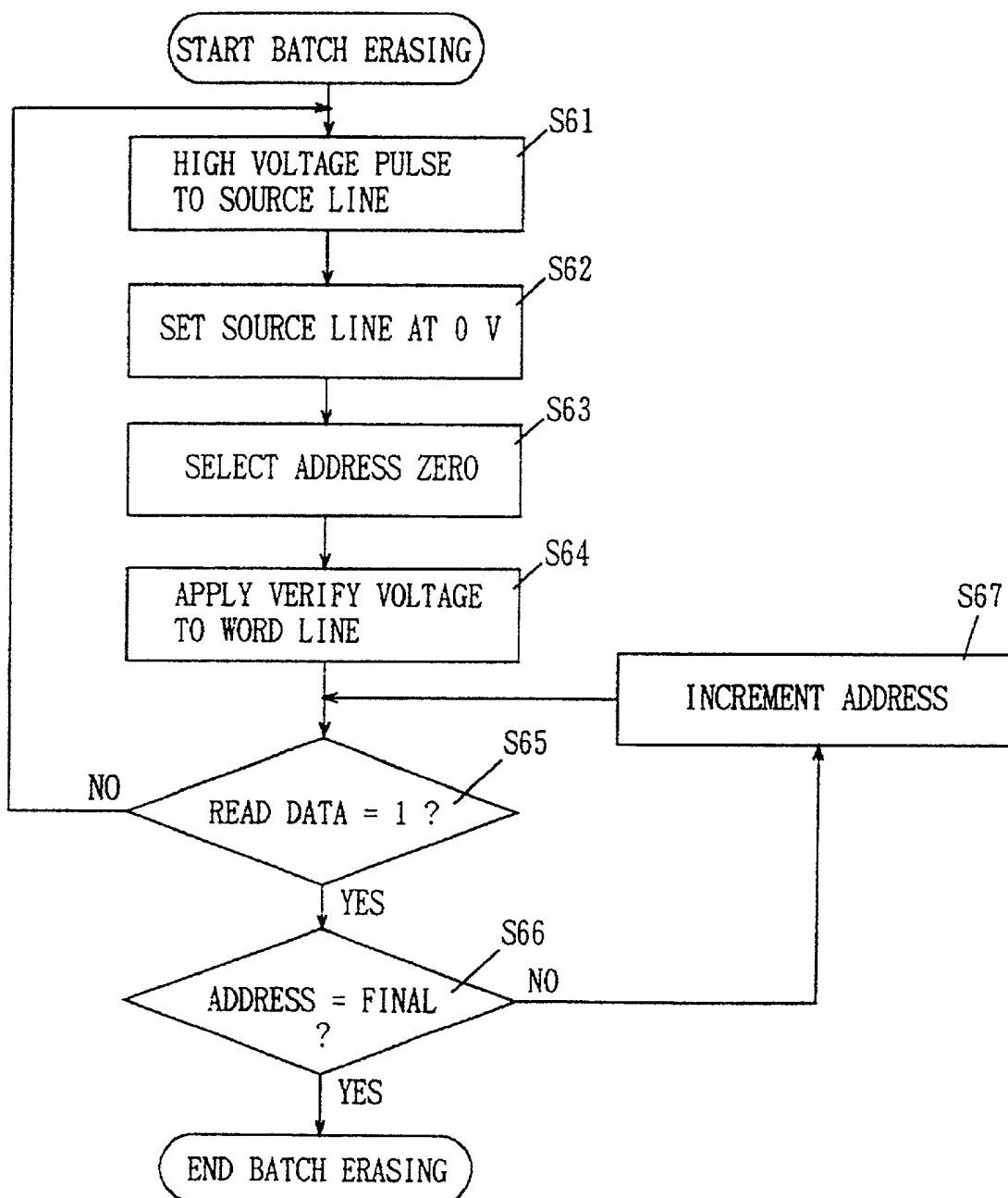


FIG. 136 PRIORITY ART

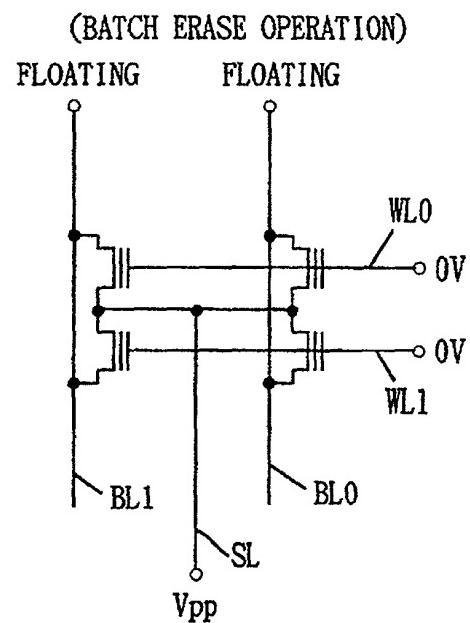


FIG. 137 PRIORITY ART

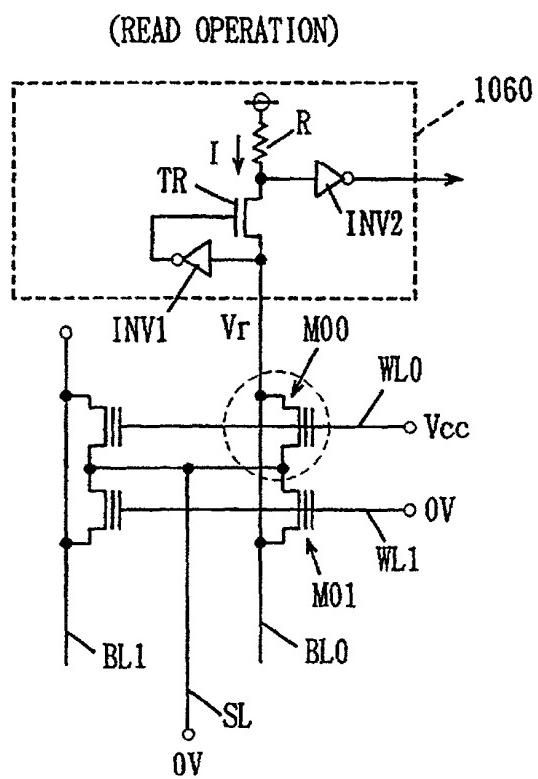


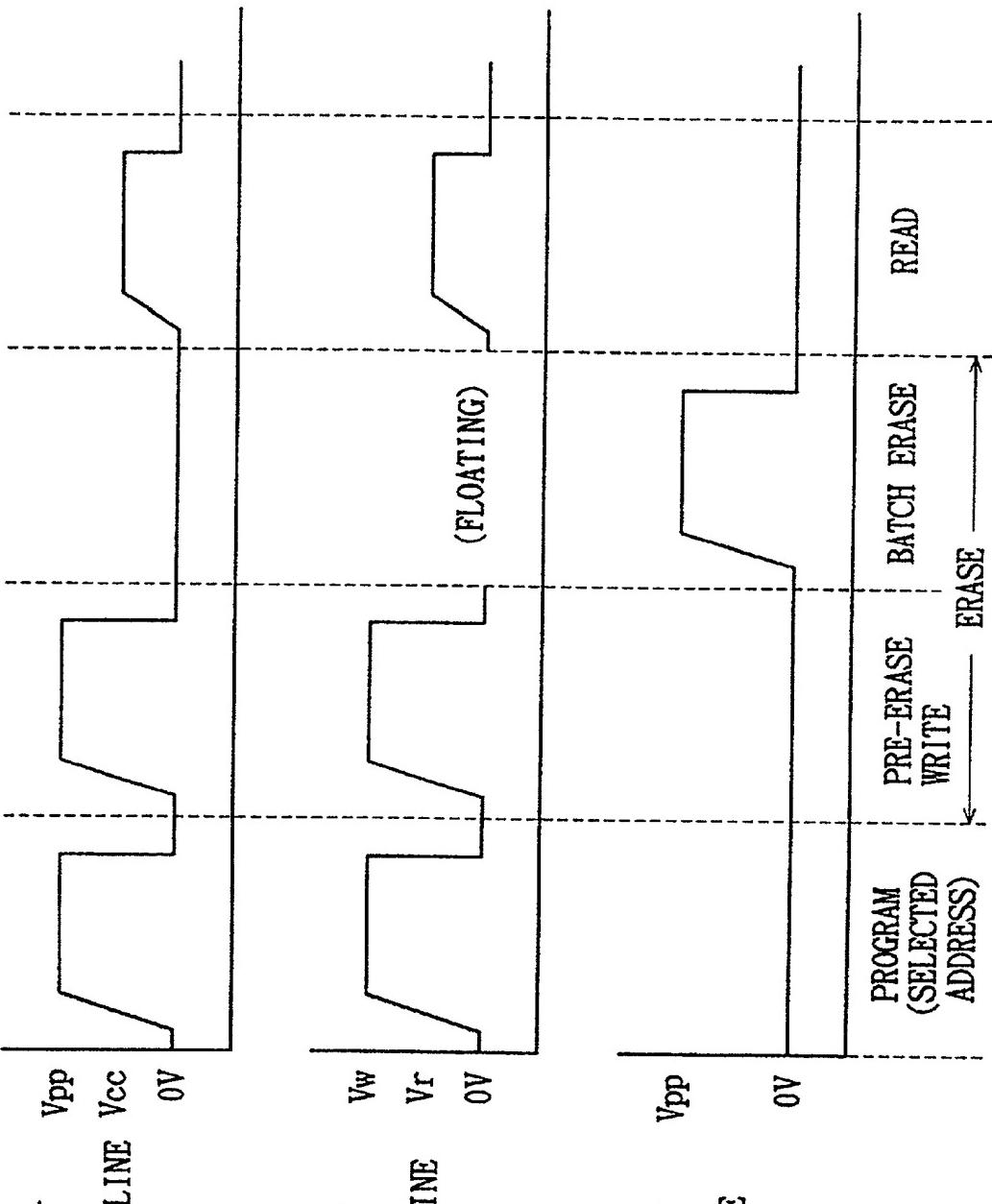
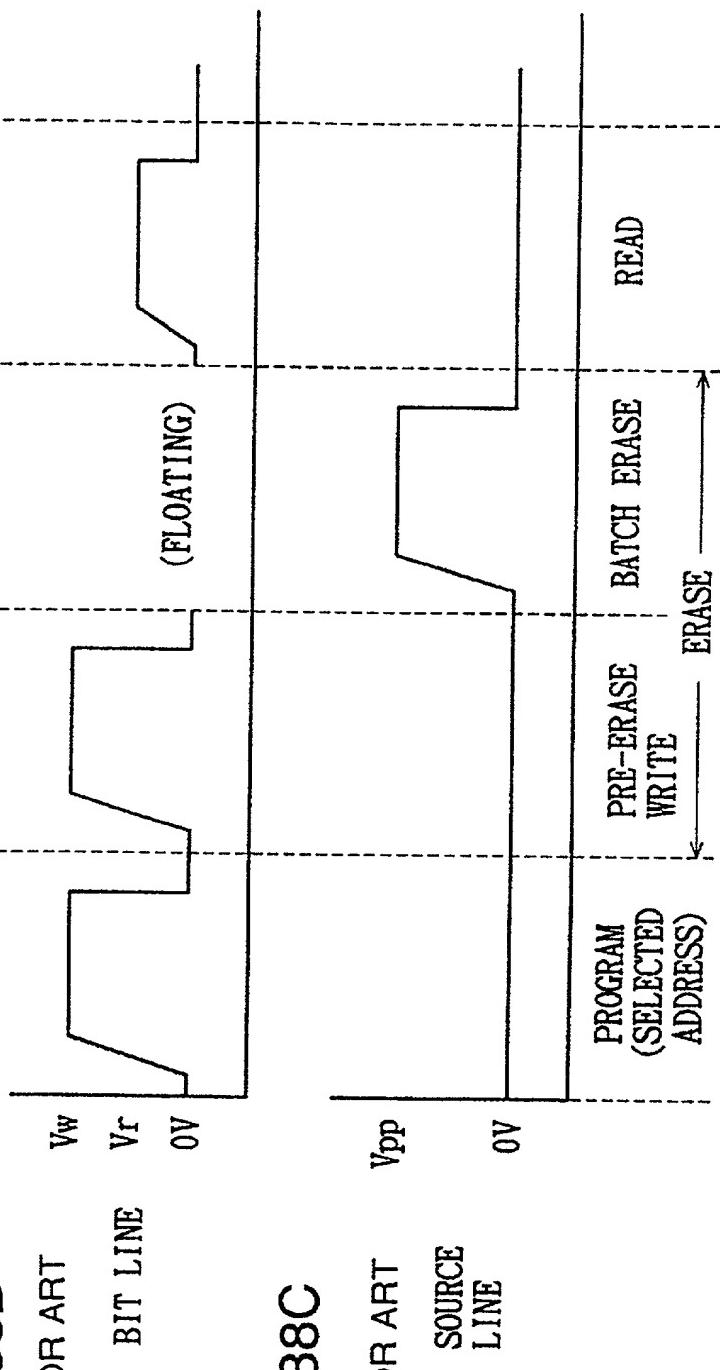
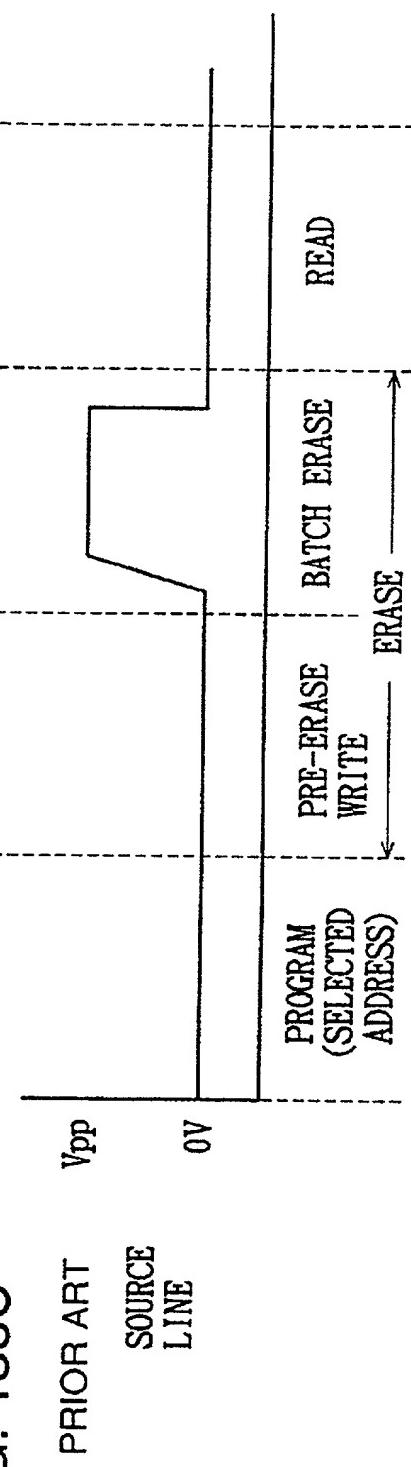
FIG. 138A**FIG. 138B****FIG. 138C**

FIG. 139 PRIOR ART

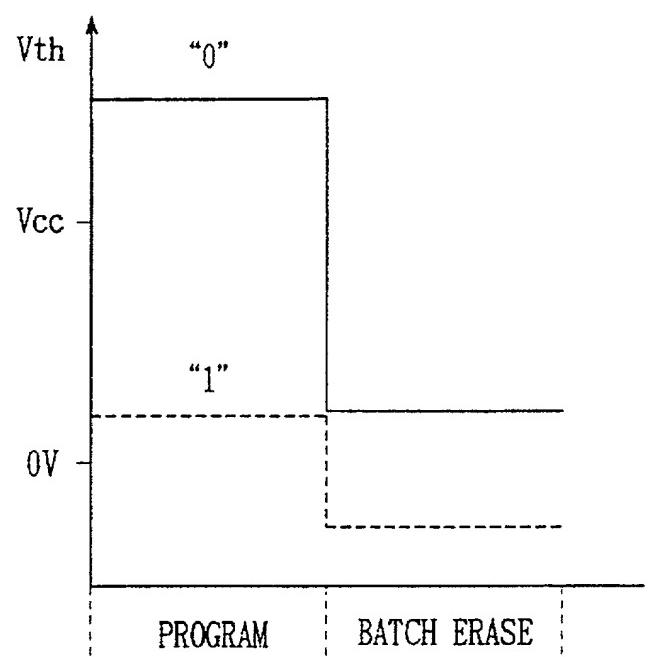


FIG. 140 PRIOR ART

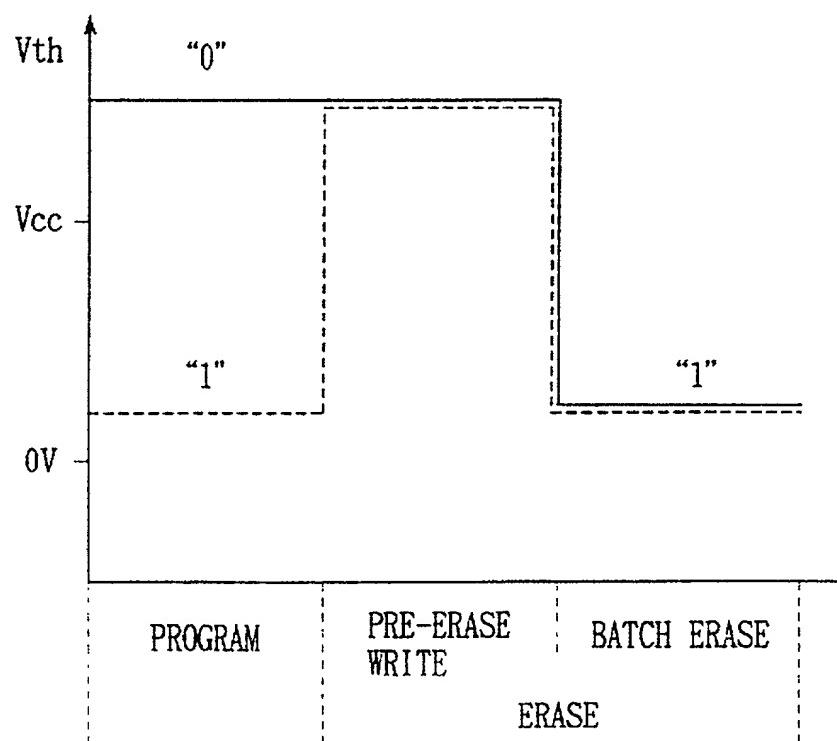


FIG. 141 PRIOR ART

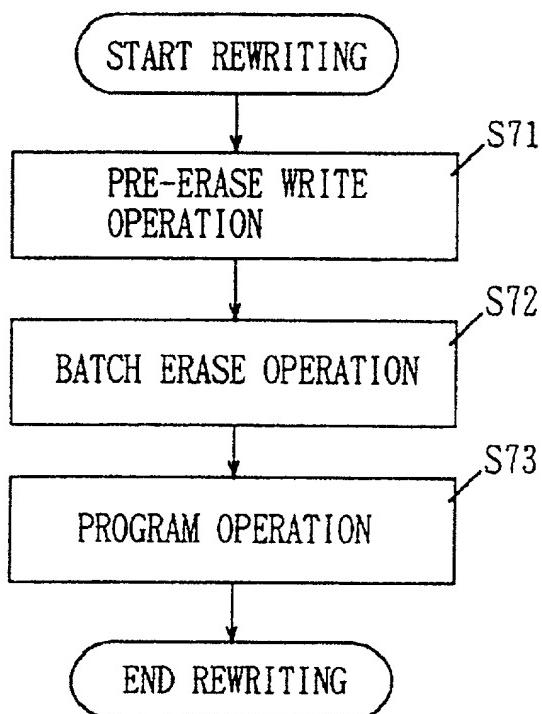


FIG. 142 PRIOR ART

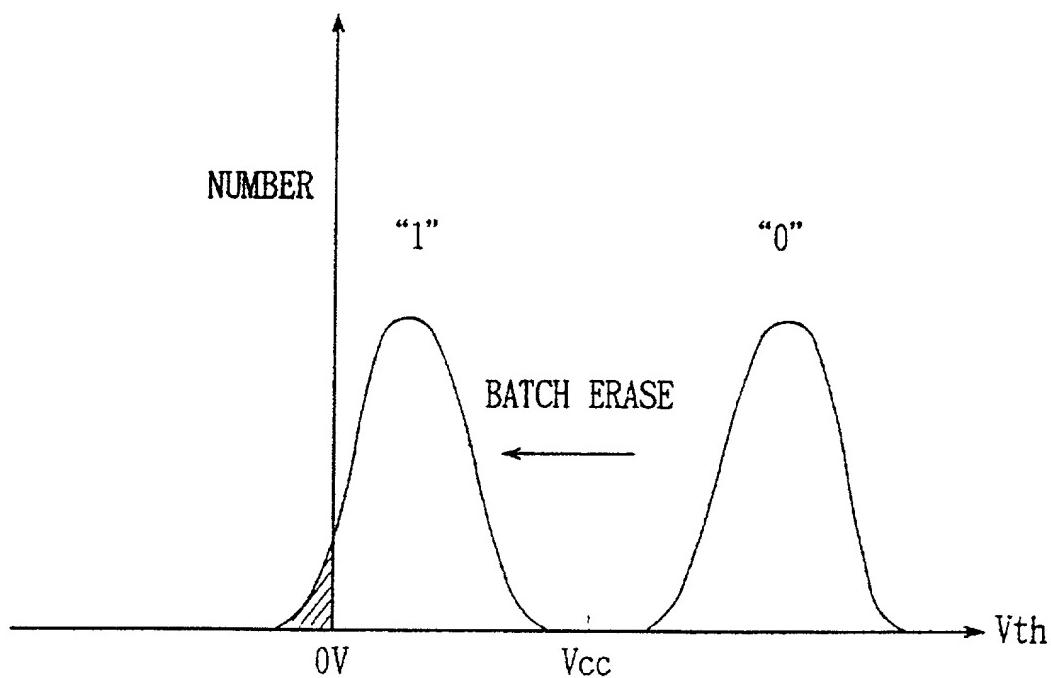


FIG. 143 PRIOR ART

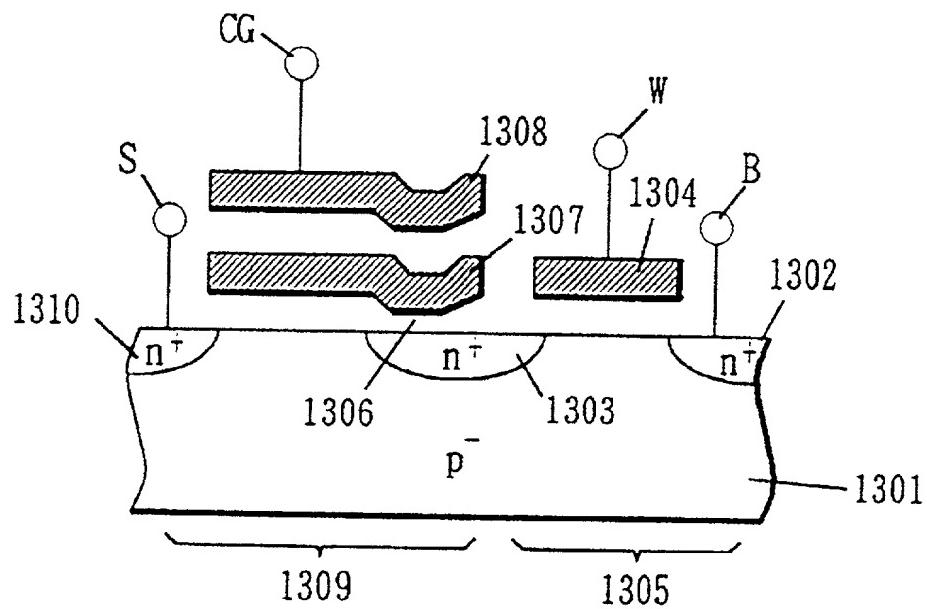


FIG. 144 PRIOR ART

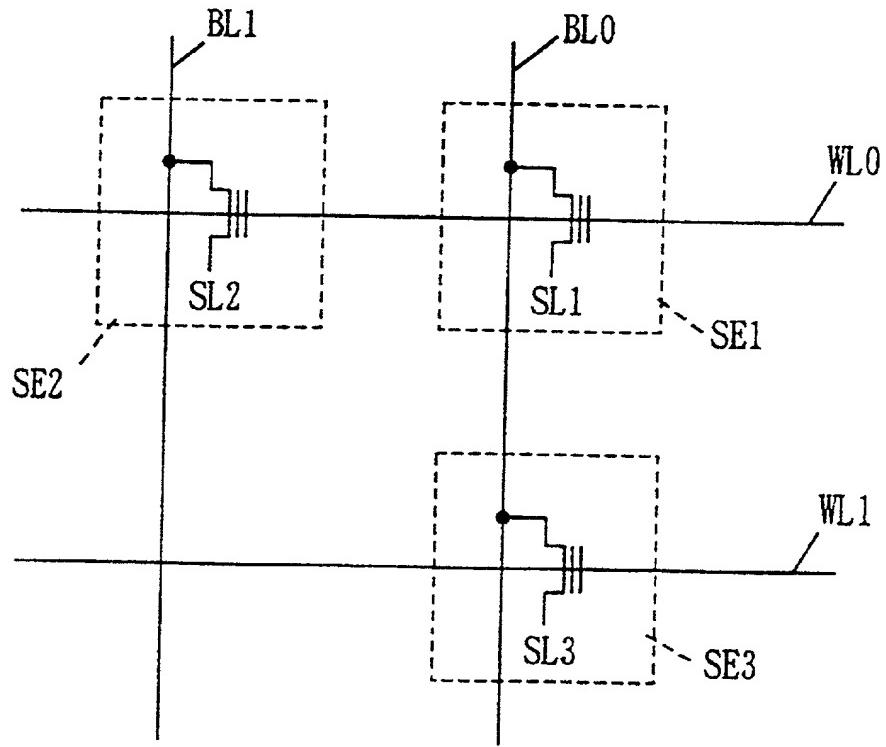
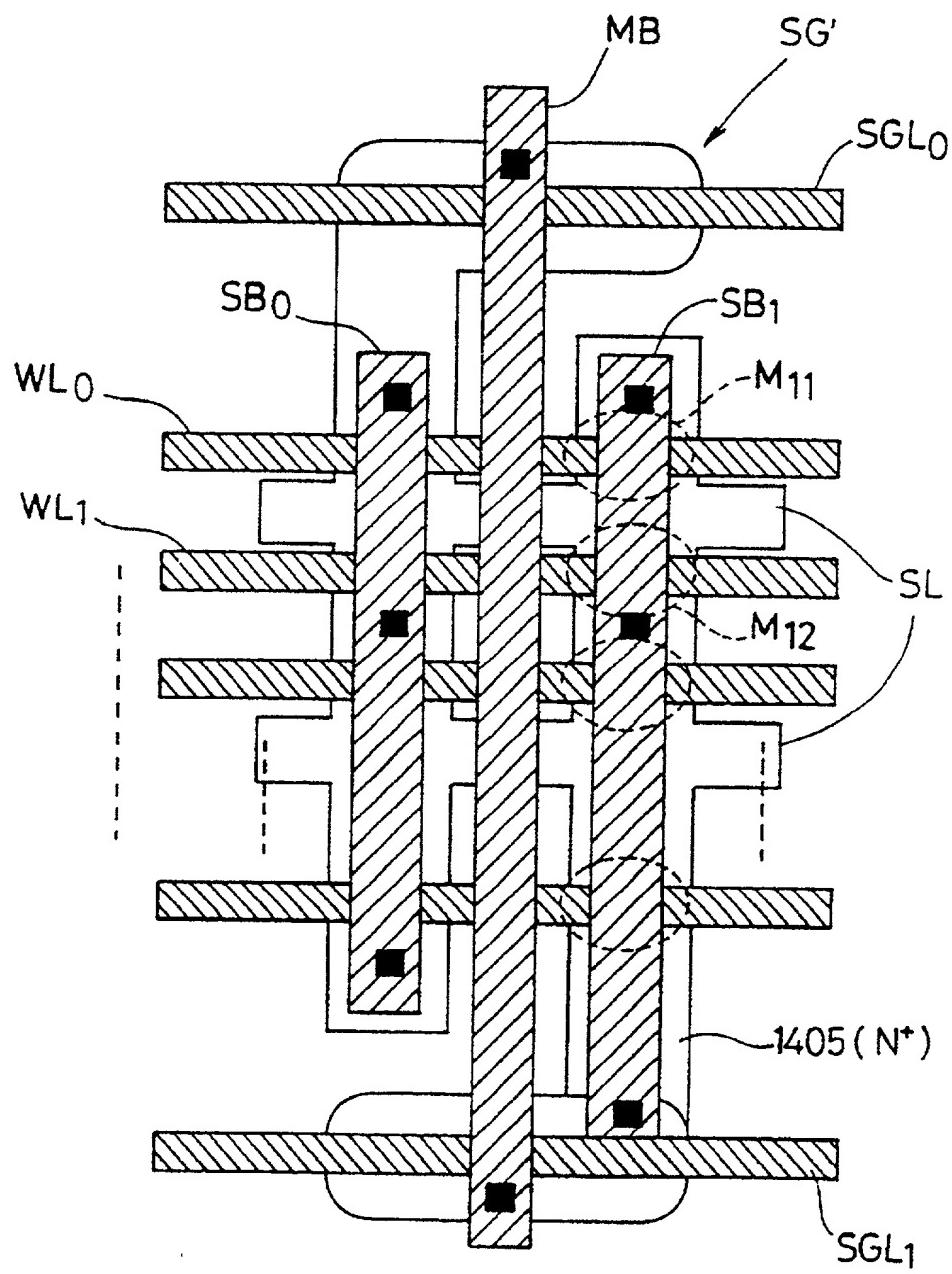


FIG. 145



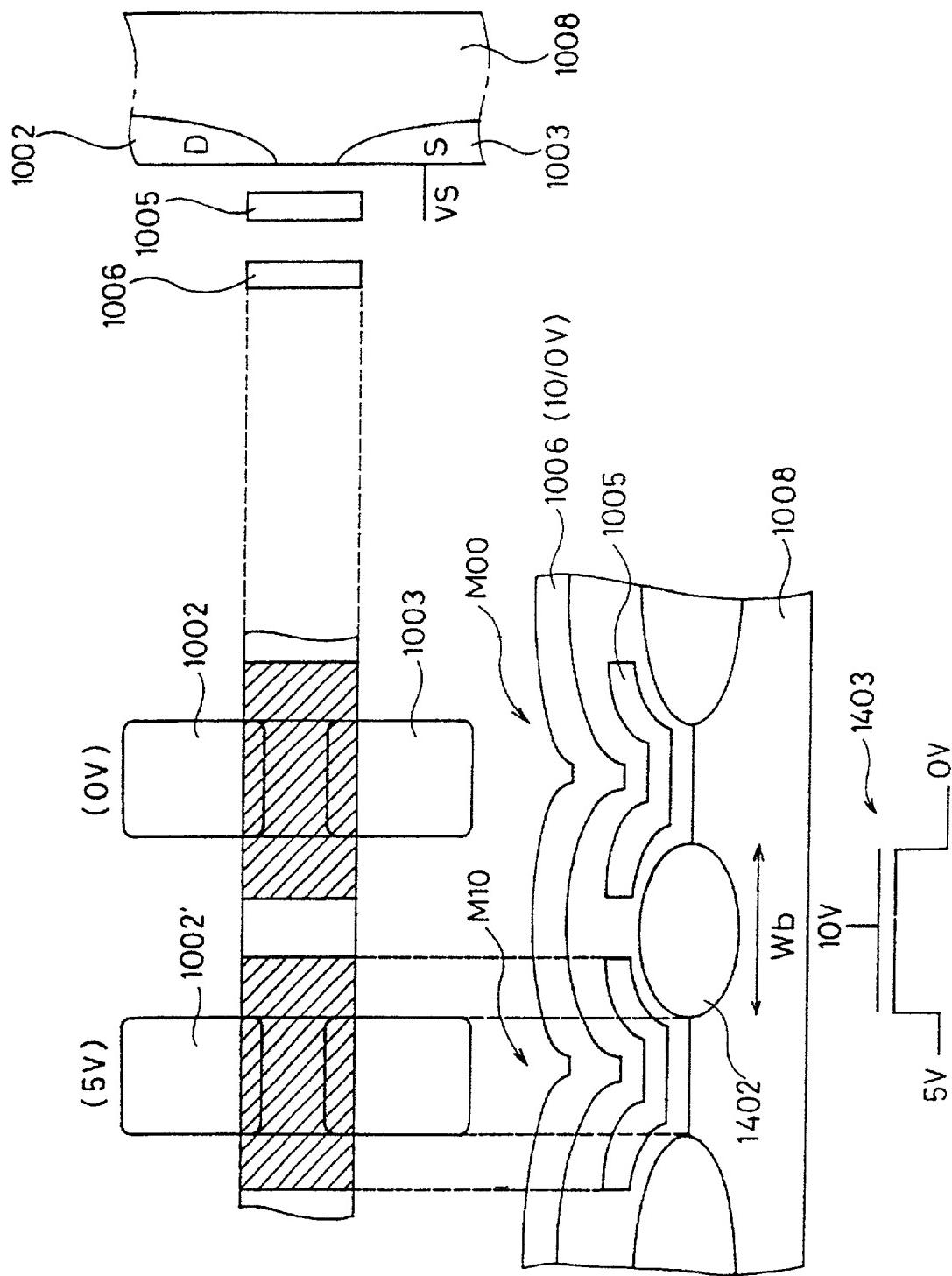


FIG. 146

FIG. 147A

PROGRAM

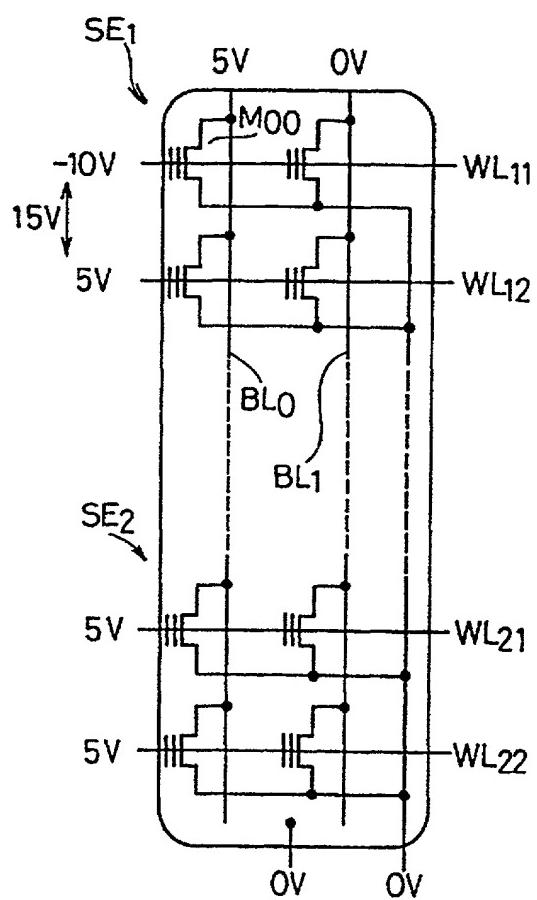


FIG. 147B

ERASE

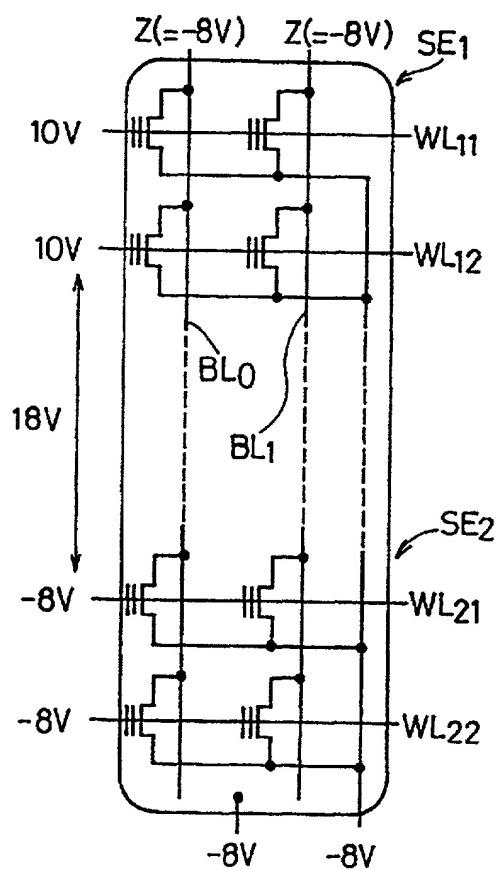


FIG. 148 PRIOR ART

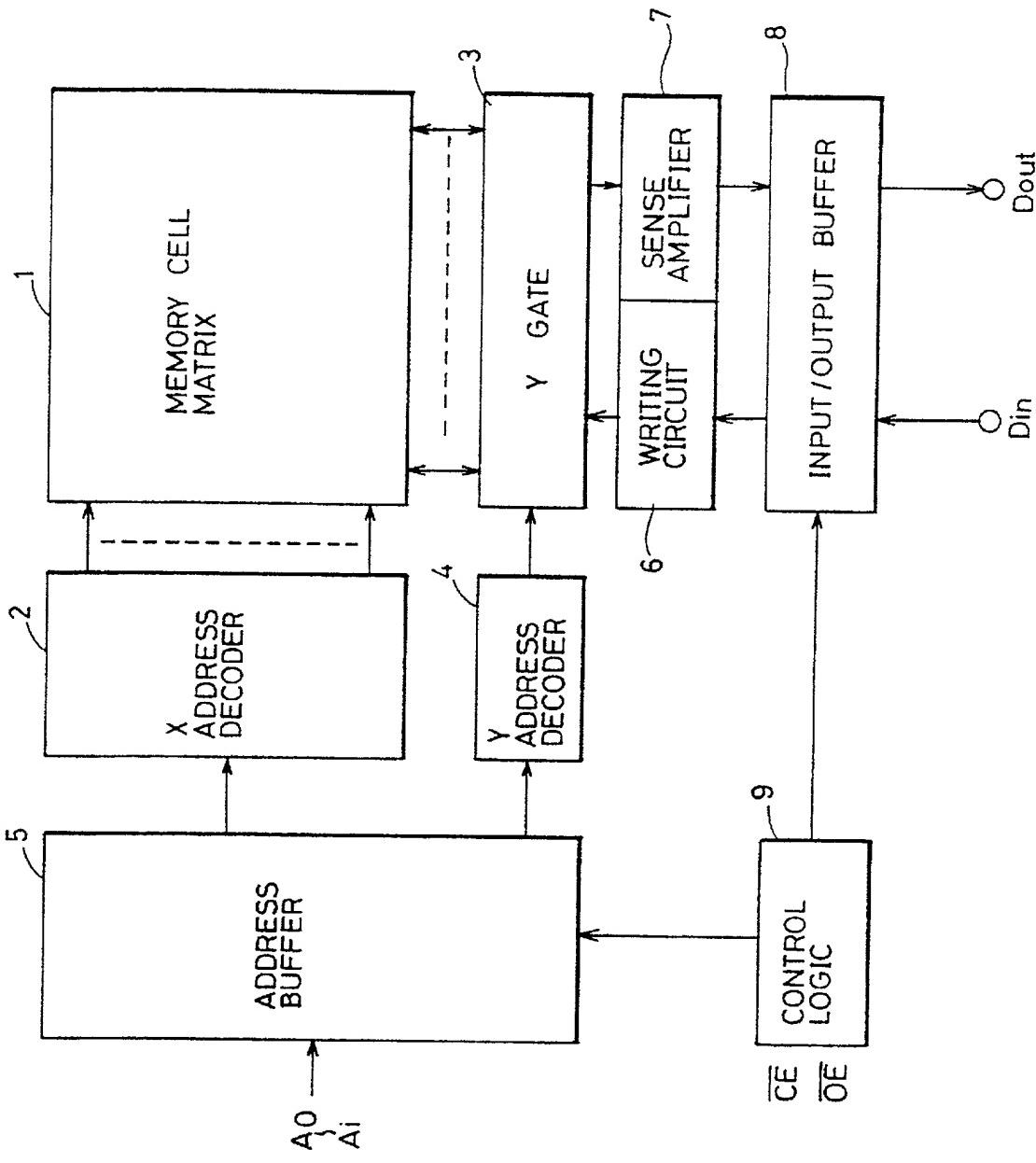


FIG. 149 PRIOR ART

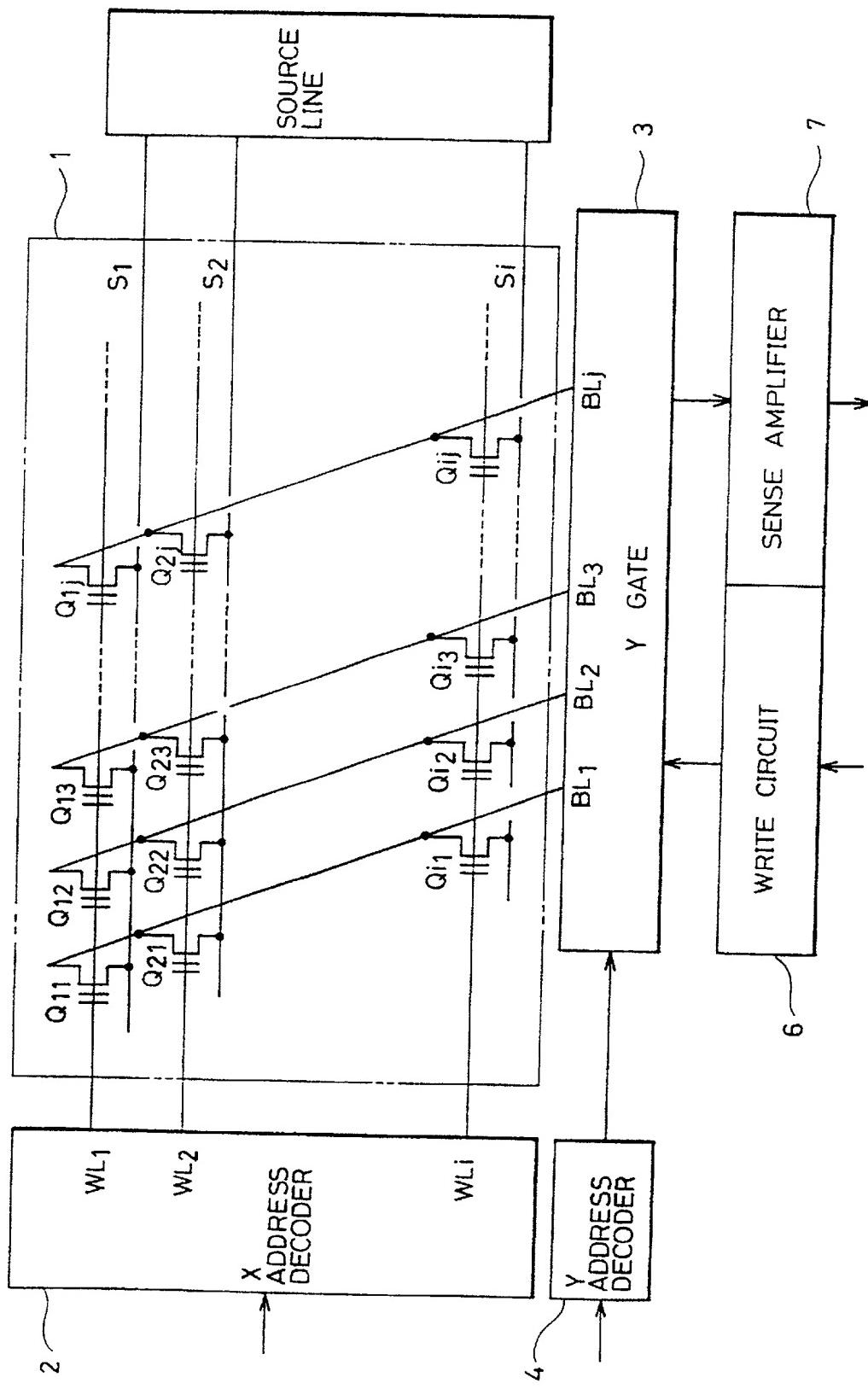


FIG. 150 PRIORITY ART

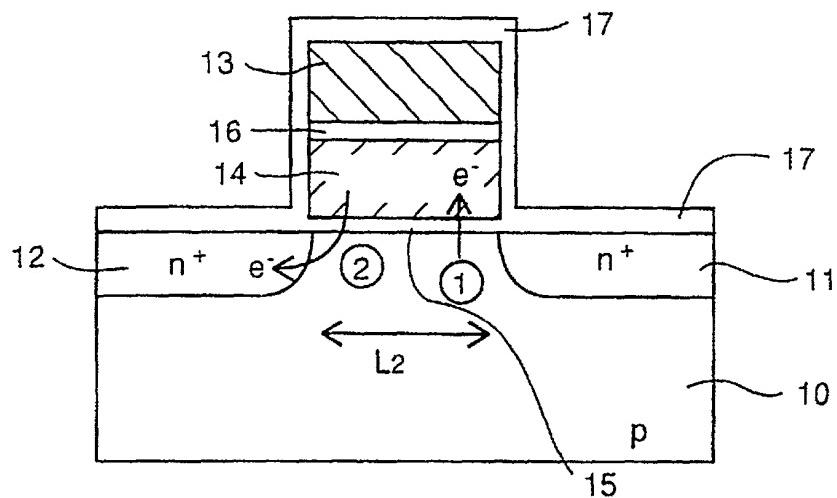


FIG. 151 PRIORITY ART

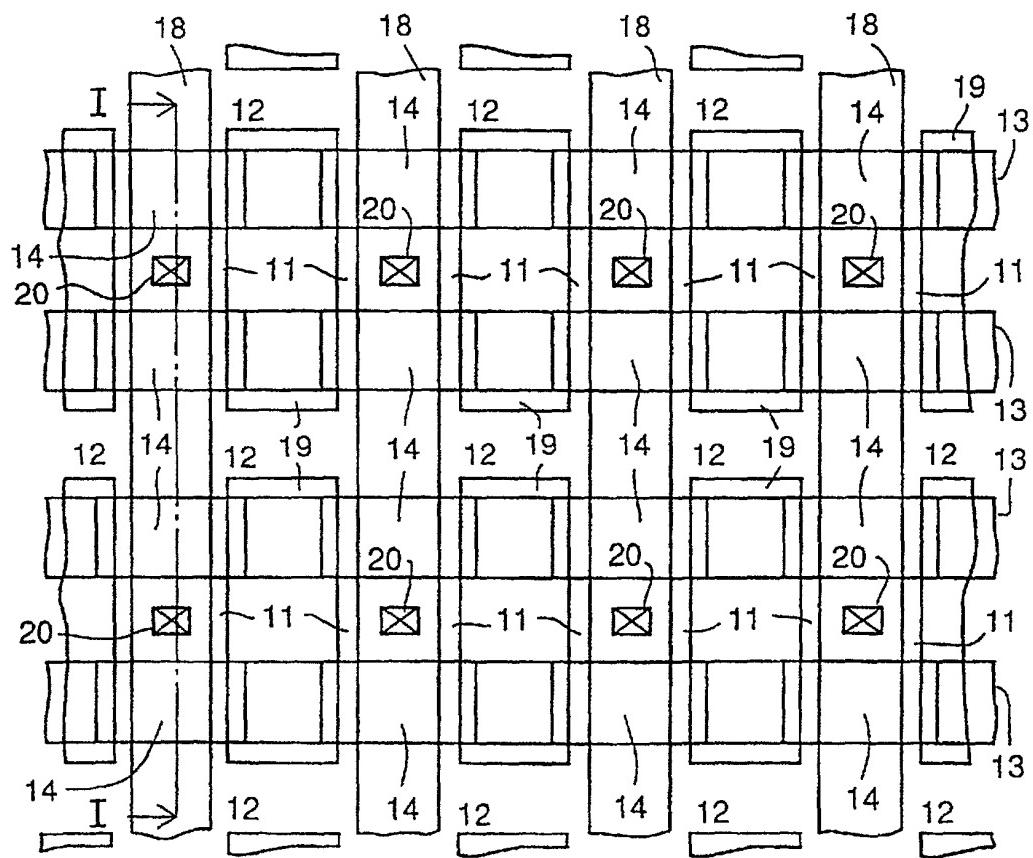


FIG. 152

PRIOR ART

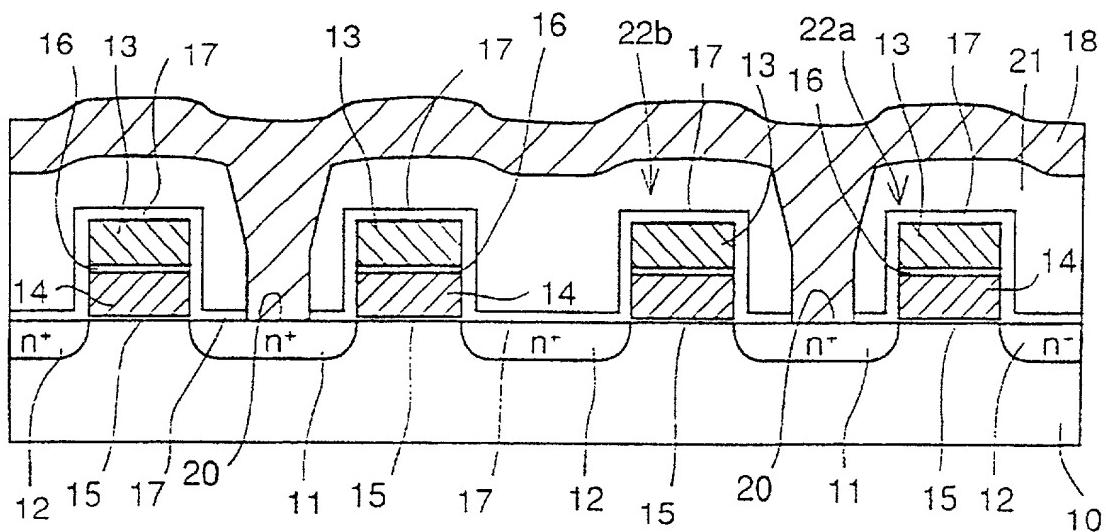


FIG. 153

PRIOR ART

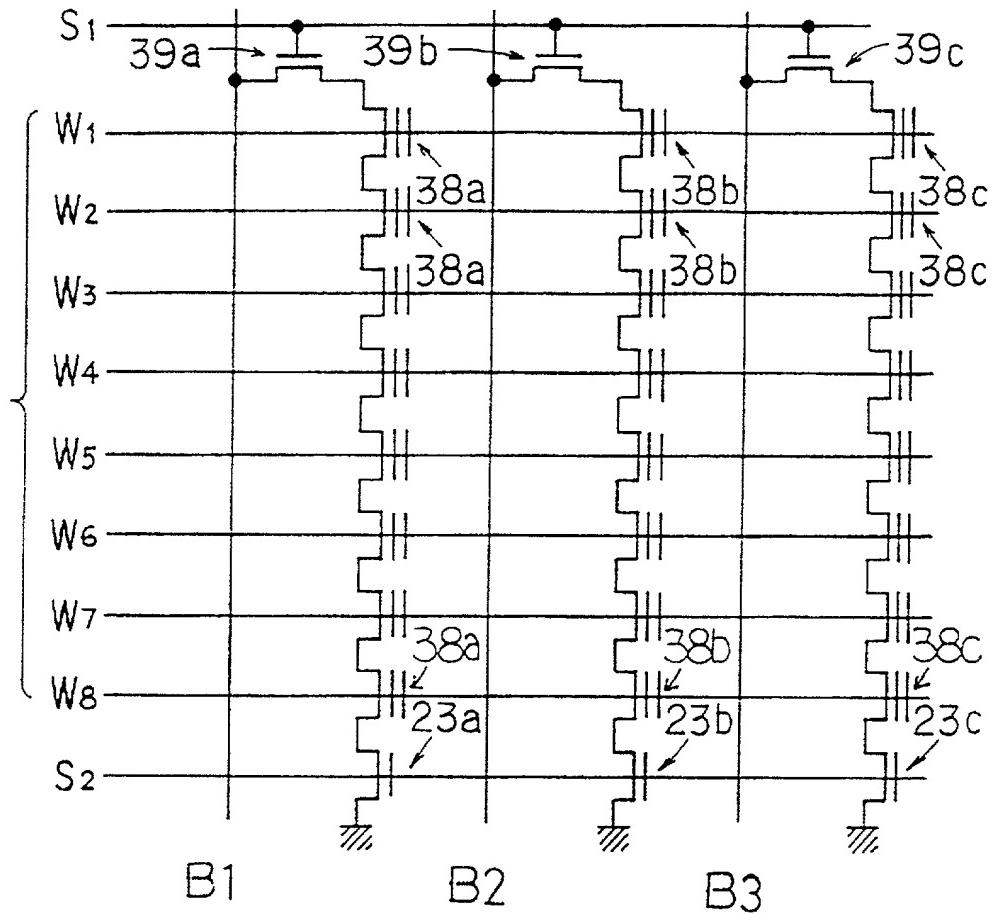


FIG. 154

PRIOR ART

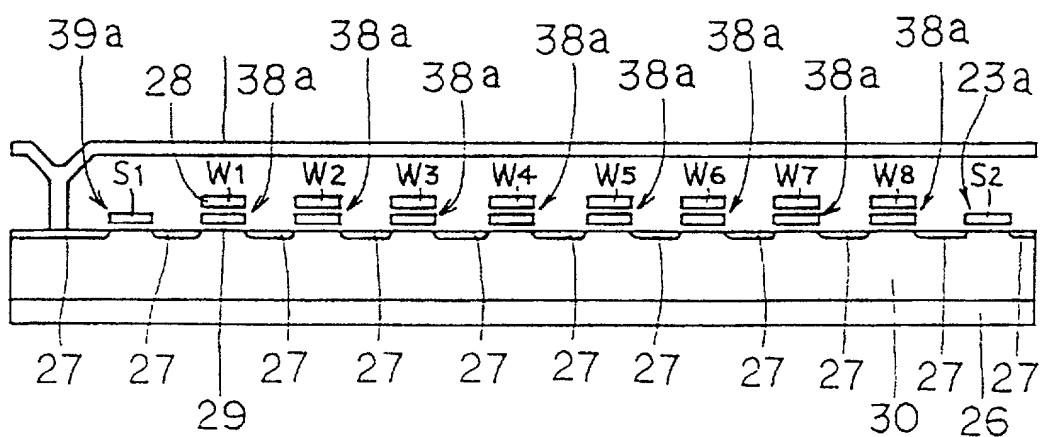


FIG. 155 PRIOR ART

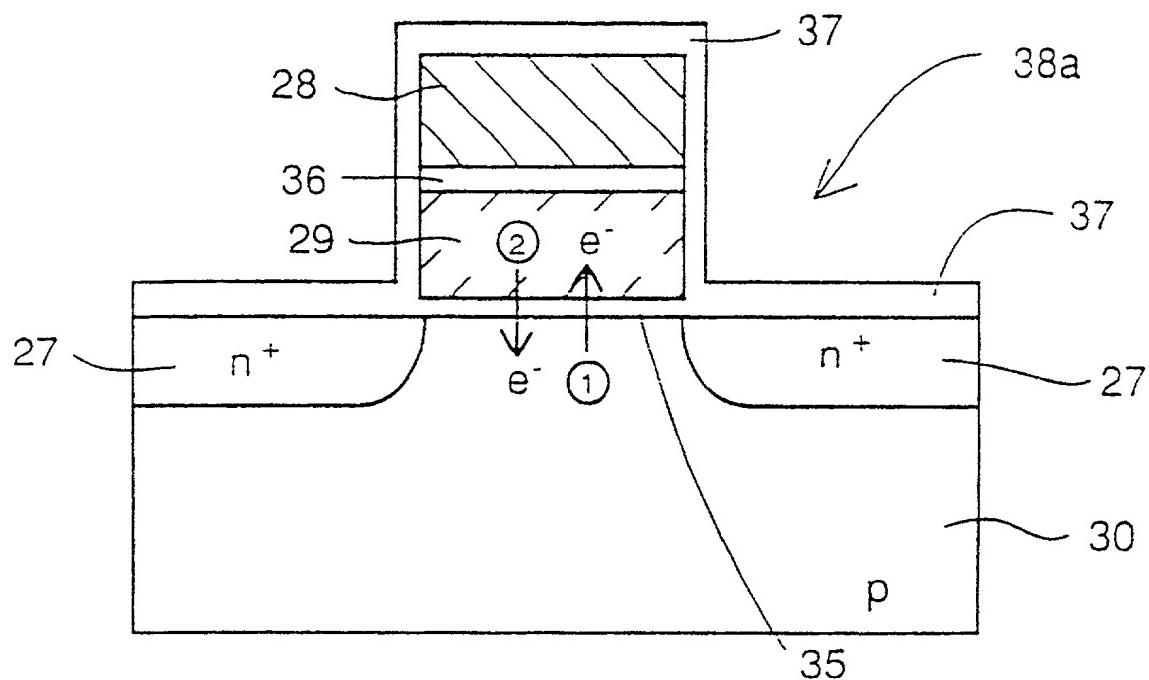


FIG. 156A

PRIOR ART

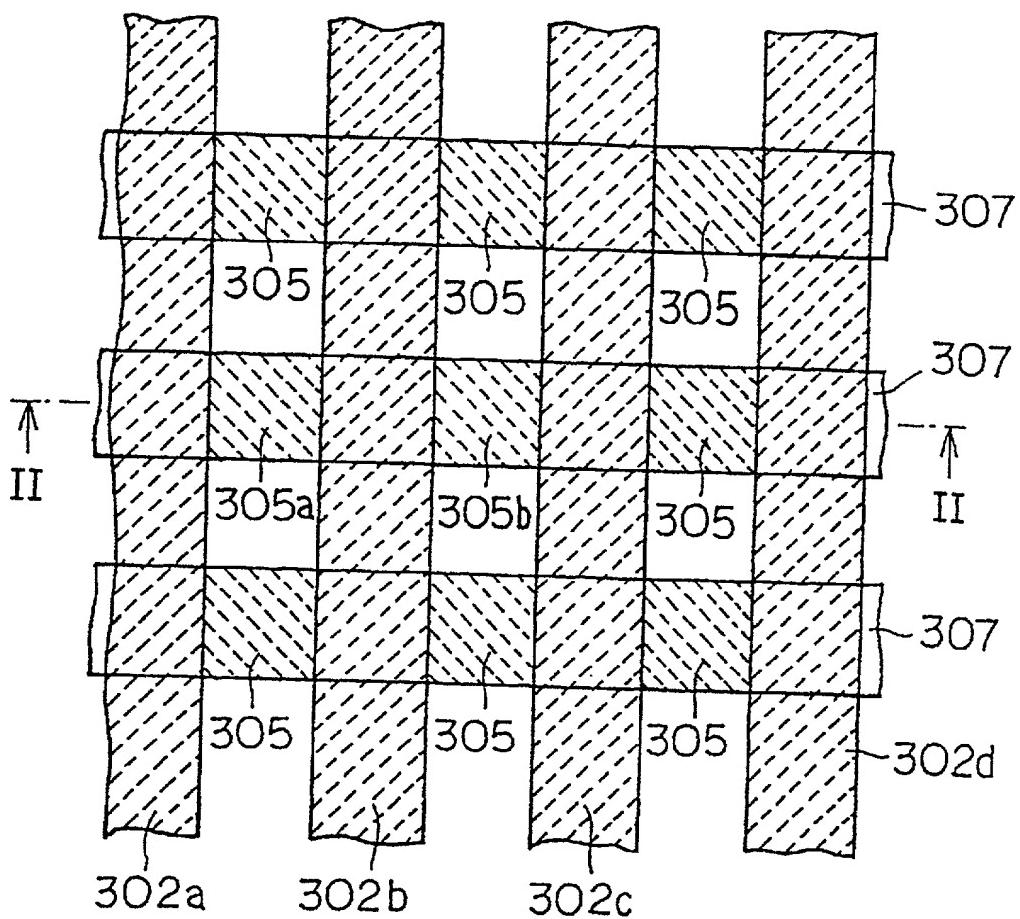


FIG. 156B

PRIOR ART

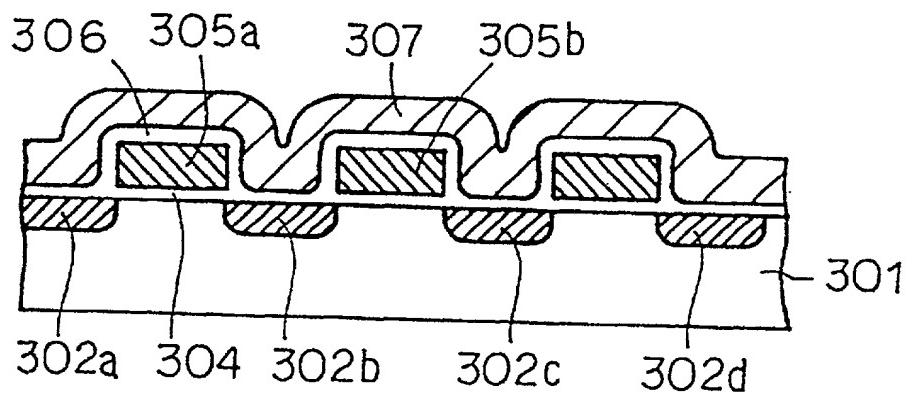


FIG. 157 PRIOR ART

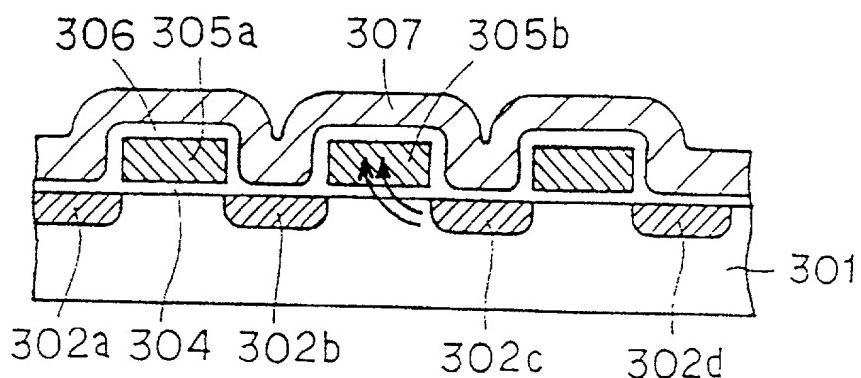


FIG. 158 PRIOR ART

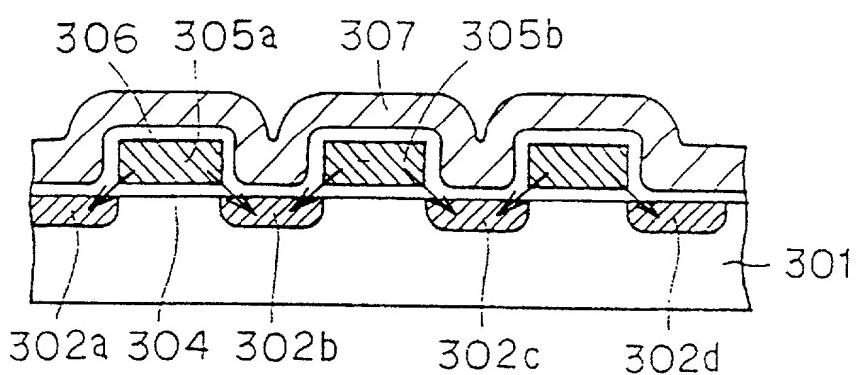


FIG. 159 PRIOR ART

